

Pathways from Family Contextual Factors to Romantic Outcomes in Young Adults of  
Divorced Parents: Mediation through Peer Competence and Coping Efficacy

by

Amanda Sigal

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Amanda Sigal

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Graduate Supervisory Committee:

Irwin Sandler, Chair  
Roger Millsap  
Keith Crnic  
Kathryn Lemery

ACCEPTED BY THE GRADUATE COLLEGE

## ABSTRACT

Using a sample of children from divorced homes, the current study assesses the effects of family relationship variables on romantic outcomes in young adulthood, through the influence of several individual-level variables. In particular, children's coping efficacy and peer competence are examined as mediators of the effects of parenting and interparental conflict on children's later romantic involvement and relationship quality. Assessments occurred during childhood, when children were between the ages of nine and 12, in adolescence, when children were ages 15 to 18, and in young adulthood, when children were ages 24 to 27, spanning a period of 15 years. Childhood and adolescent variables were measured using child- and mother-report data and young adult measures were completed by the young adults and their romantic partners. One model was tested using all participants in the sample, regardless of whether they were romantically involved in young adulthood, and revealed that maternal warmth in childhood was linked with children's coping efficacy six years later, which was marginally related to an increased likelihood of being romantically involved and to decreased romantic attachment at the 15-year follow-up. A model with only the participants who were romantically involved in young adulthood also revealed a link between childhood maternal warmth and coping efficacy in adolescence, which was then marginally related to increased romantic satisfaction and to confidence in the romantic relationship in young adulthood. Marginal mediation was also found for several of the proposed paths, and there was little evidence to support path differences between males and females. Implications of the present findings for research with children from divorced families and the development of preventive interventions are discussed. In particular, parenting, interparental conflict, peer competence, and coping efficacy are examined as modifiable targets for change and existing preventive interventions employing these targets are described.

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## TABLE OF CONTENTS

	Page
LIST OF TABLES.....	v
LIST OF FIGURES.....	vi
INTRODUCTION .....	1
Prevalence and impact of parental divorce on children .....	1
Lasting effects of parental divorce on adult well-being .....	1
Theories of the mechanisms by which parental divorce impacts offspring’s romantic relationships .....	4
Interparental conflict .....	4
Parenting and the parent-child relationship .....	7
Joint contributions of interparental conflict, parenting, and the parent-child relationship .....	11
Limitations of existing studies .....	13
The present study .....	16
Mediator one: Peer competence.....	18
Mediator two: Coping efficacy .....	20
Summary .....	23
METHOD .....	24
Participants .....	24
Recruitment and eligibility .....	26
Procedure .....	27
Measures of predictors: Pretest .....	27
Interparental conflict .....	28
Parenting .....	28
Measures of mediators: Six-year follow-up .....	29

	Page
Peer competence .....	29
Coping efficacy .....	29
Measures of outcomes: 15-year follow-up .....	29
Involvement in a romantic relationship .....	29
Romantic attachment .....	29
Current romantic relationship measures .....	30
PLAN FOR DATA ANALYSIS .....	31
Preliminary analyses .....	31
Development of composite measures .....	32
Summary of analyses .....	34
Effects of the preventive intervention on proposed pathways .....	34
Two-part mediational model .....	36
Moderated mediation .....	39
RESULTS .....	40
Preliminary analyses .....	40
Program effects analyses .....	44
Tests of differences between program conditions .....	44
Tests of differences between the combined program condition and the literature control .....	45
Mediational analyses .....	47
Moderated mediation .....	47
All participants .....	47
Romantically-involved participants .....	51
DISCUSSION .....	56
Model with all participants .....	57

	Page
Model with only the romantically-involved participants .....	63
Theoretical implications, strengths, and weaknesses .....	65
Intervention implications and future directions .....	67
REFERENCES .....	124

## LIST OF TABLES

Table	Page
1. Measures and Reliabilities .....	72
2. Intercorrelations Among Potential Covariates, Mediators, and Outcomes in a Longitudinal Sample of Children of Divorce .....	75
3. Measures of Covariates, Predictors, Mediators, and Outcomes in a Longitudinal Sample of Children of Divorce .....	78
4a. Intercorrelations Among Pretest and Six-Year Follow-Up Variables in a Longitudinal Sample of Children of Divorce .....	82
4b. Intercorrelations Among Pretest and 15-Year Follow-Up Variables in a Longitudinal Sample of Children of Divorce .....	85
4c. Intercorrelations Among Six-Year Follow-Up and 15-Year Follow-Up Variables in a Longitudinal Sample of Children of Divorce .....	89
5. Results of Attrition Analyses .....	91
6. Standardized Path Coefficients and Standard Errors: Model with All Participants ...	92
7. Paths Added to Improve Model Fit: Model with All Participants .....	99
8. Tests of Significance for Mediated Effects: Model with All Participants .....	100
9. Standardized Path Coefficients and Standard Errors: Model with Only Romantically- Involved Participants .....	101
10. Paths Added to Improve Model Fit: Model with Only Romantically-Involved Participants .....	110
11. Tests of Significance for Mediated Effects: Model with Only Romantically-Involved Participants .....	111



## LIST OF FIGURES

Figure	Page
1. Participants currently involved in a romantic relationship .....	112
2. All participants, regardless of romantic involvement .....	113
3. CFA for maternal warmth items .....	114
4. CFA for maternal discipline items .....	115
5. Stacked model for all participants, testing gender moderation: males .....	116
6. Stacked model for all participants, testing gender moderation: females .....	117
7. Stacked model for only romantically-involved participants, testing gender moderation: males (simpler model with romantic relationship satisfaction, problems, and confidence variables) .....	118
8. Stacked model for only romantically-involved participants, testing gender moderation: females (simpler model with romantic relationship satisfaction, problems, and confidence variables).....	119
9. Stacked model for only romantically-involved participants, testing gender moderation: males (simpler model with relationship beginnings and breakups and romantic attachment variables) .....	120
10. Stacked model for only romantically-involved participants, testing gender moderation: females (simpler model with relationship beginnings and breakups and romantic attachment variables) .....	121
11. Standardized path coefficients for model with all participants (combined genders)	122
12. Standardized path coefficients for model with only romantically-involved participants (combined genders) .....	123

## Introduction

*Prevalence and impact of parental divorce on children.* Divorce has become increasingly prevalent in the United States, such that approximately 14% of children currently reside in separated or divorced homes (US Census Bureau, 2005). Bumpass & Lu (2000) have additionally predicted that 34% of children will experience parental divorce by the time they are 16 years old. Studies have consistently shown links between divorce and child well-being, such that children from divorced families exhibit more internalizing, externalizing, interpersonal, and academic problems than do children from two-parent families (Amato & Keith, 1991; Amato, 2001). Children from divorced families are also more likely to have clinically-significant mental health problems and to use mental health services than children from non-divorced families (Hetherington et al., 1998). Youth who have experienced parental divorce report greater levels of alcohol and drug use (Hoffmann & Johnson, 1998), are more likely to drop out of school, and are more likely to experience teen childbirth than are youth from non-divorced families (McLanahan, 1999). For example, an analysis by McLanahan (1999) found that adolescents from divorced families had school dropout rates of 31% and teen pregnancy rates of 33%, vs. 13% and 11%, respectively, for adolescents from non-divorced families. Some studies have also shown that divorce is related to increased physical health problems in children and adolescents (Dawson, 1991; Troxel & Matthews, 2004).

*Lasting effects of parental divorce on adult well-being.* While most children are resilient following parental divorce and adapt well to the transition from childhood to adulthood, for some children, parental divorce exerts a lasting negative impact on adult adjustment. Resilience can be conceptualized as the environmental and personal resources that serve to facilitate the process of healthy adaptation to stressful life events and protect one from the development of mental health and other significant problems (Luthar, 2003; Rutter, 1990; Sandler, Wolchik, & Ayers, 2008).

For those who do not adapt well, parental divorce in childhood is associated with clinically significant depression, anxiety, conduct problems, and substance abuse in adulthood, even when controlling for factors such as pre-divorce adversities, history of psychopathology, and SES (Chase-Lansdale et al., 1995; Kessler et al., 1997; Hope et al., 1998). The experience of divorce in childhood has been linked to multiple adverse health outcomes in adulthood; parental divorce prior to the age of 21 is related to an increase in mortality risk by 44%, even when accounting for variables such as child temperament and the child's own divorce (Schwartz et al., 1995). Parental divorce is also associated with lower academic and occupational achievement in adulthood, both compared to offspring who lived in a single-parent household due to the death of one parent (Biblarz & Gottainer, 2000) and to children from two-parent households (O'Connor et al., 1999). In addition, adults who experienced parental divorce in childhood have been shown to earn lower incomes and hold less prestigious jobs than their peers from continuously-married families (Sun & Li, 2008).

There is also evidence that children who experienced parental divorce in childhood have more difficulty accomplishing developmentally-salient tasks in their interpersonal relationships. In particular, children of divorce tend to experience more problems in their adult relationships with parents, peers, and romantic partners (Zill et al., 1993; Kunz, 2001; Amato & Booth, 1991). Jacquet & Surra (2001) found parental divorce to be related to less trust and more conflict and ambivalence in the romantic relationships of young adults. Interestingly, strong gender differences emerged, such that these results were found for women from divorced families regardless of whether their partner had come from a divorced family, but for men was only found when both they and their partners had experienced parental divorce in childhood. Similarly, a study by Chen et al. (2006) found that young women from divorced families experienced more conflict in their romantic relationships than did females from non-divorced families. Interestingly,

the authors discovered that the romantic relationships of males were less adversely affected, such that men from divorced families endorsed lower levels of romantic conflict than did men from non-divorced households.

Many studies indicate that children of divorce are also at an elevated risk for experiencing problems in their later marriages. Webster, Orbuch, & House (1995) found that even when controlling for age, ethnicity, gender, and education, children from divorced families were more likely to report marital problems than children from non-divorced homes. Amato & DeBoer (2001) found that parental divorce approximately doubled the likelihood that offspring's own marriages would end in divorce. According to a study by Bumpass, Martin, & Sweet (1991), females are especially vulnerable: women who experienced parental divorce in childhood were at a 70% greater risk of experiencing marital problems than were daughters whose parents did not divorce. This phenomenon is called the intergenerational transmission of divorce, and has ample empirical support in the literature (Amato, 1996; D'Onofrio et al., 2007; Whitton et al., 2008; Wolfinger, 2000). According to this theory, there is a strong association between parental divorce and the marital dissolution of offspring that occurs in both first and later marriages (Amato, 1996; Amato & DeBoer, 2001). Illustratively, Amato (1996) found that the risk for divorce increased by 69% for wives if their parents had divorced and by 189% if both partners' parents had divorced. It is interesting to note that the increased likelihood of divorce is specific to having experienced the divorce of parents, and is not found for children who grew up in families with high levels of interparental conflict (Amato, 1996; Amato & DeBoer, 2001; O'Connor et al., 1999; Whitton et al., 2008). While there is evidence to show that parental divorce is associated with interpersonal relationship problems in adulthood, particularly with romantic partners, there are conflicting views on the processes which lead children from divorced families to develop such problems.

*Theories of the Mechanisms by Which Parental Divorce Impacts Offspring's Romantic Relationships*

Two processes that have been proposed to account for the development of romantic relationship problems in adult children of divorce are children's exposure to interparental conflict and the quality of parenting they received. This section will review the theory and evidence concerning the role played by each of these processes in the romantic relationships of young adults who experienced parental divorce in childhood.

*Interparental conflict.* Many theories have been proposed to elucidate the mechanisms through which parental divorce can lead to negative outcomes for offspring. One such theory that attempts to explain the link between parental divorce and offspring's romantic relationship problems emphasizes the role played by children's exposure to intense, frequent interparental conflict. Studies have found that the time immediately following separation and divorce is often plagued by conflict between parents, and for approximately 10% of families, this interparental conflict continues for years after (Hetherington, 1999; Kelly & Emery, 2003; Maccoby et al., 1993). Persistent interparental conflict is associated with numerous negative outcomes for children, including mental health and other adjustment problems and poor romantic relationships later in life (Davies & Cummings, 1994; Doucet & Aseltine, 2003; Kelly & Emery, 2003; Kirk, 2002). One way in which children's romantic relationships can be impacted by interparental conflict following divorce is conceptualized in the framework of social learning. In general, Bandura (1962) suggested that children learn appropriate behavior through observation of others and employ these behaviors in their own relationships. Within the family context, children's exposure to the interactions that occur within the marital relationship facilitates the development of relationship scripts that dictate expectations of their own interactions with the opposite sex (Emery, 1982; Feldman, Gowen, & Fisher, 1998; O'Leary, 1988).

Some researchers have hypothesized that the same maladaptive interpersonal behaviors that caused the dissolution of the marriage will be modeled for children of divorce, and thus these individuals are exposed to inappropriate models of spousal roles (Glenn & Kramer, 1987). For children who have witnessed parental interactions characterized by hostility, excessive criticism, and a general lack of conflict resolution, there may be a transmission of similar maladaptive interpersonal behaviors that is detrimental to their romantic relationships (Caspi & Elder, 1988; Patterson, Reid, & Dishion, 1998). For example, it has been suggested that children who witness unresolved interparental conflict may develop low levels of perceived efficacy in resolving their own romantic relationship conflict, which could then contribute to relationship problems or dissolution (Cui, Fincham, & Pasley, 2008). Some theorists also argue that children's observation of frequent and intense interparental conflict may be related to their future inability to negotiate interpersonal conflicts and difficulty regulating negative affect in response to such conflict (Kennedy, Bolger, & Shrout, 2002). In particular, Fite et al. (2008) theorized that children's observation of hostile marital conflict would be associated with less exposure to proactive conflict resolution strategies and the acquisition of more aggressive responses to interpersonal conflict.

There is ample empirical support for social learning theory in studies examining the impact of interparental conflict on children of divorce. Hayashi & Strickland (1998) found that among young adult children of divorced parents, those who also reported witnessing frequent interparental conflict in childhood also endorsed fears of being abandoned by their partners and expressed feelings of jealousy. Mullett & Stolberg (2002) also found that couples in which the woman's parents had divorced endorsed using less constructive communication behaviors and greater withdrawal from and avoidance of conflict. However, this effect was not found in couples in which the male partner's parents had divorced; these couples did not differ significantly from

couples in which both partners came from non-divorced families. A study comparing divorced and non-divorced families found that among all offspring currently involved in unhappy romantic relationships, the adult children of divorce endorsed more problematic conflict resolution behaviors, including shouting during arguments and allowing conflict to escalate to physical aggression, than did the adult children from two-parent families (Webster, Orbuch, & House, 1995). The findings of these studies suggest that offspring of divorce may be exposed to more problematic marital interactions in childhood and thus develop less adaptive communication and conflict resolution skills, which may then contribute to poor romantic relationship quality (Caspi & Elder, 1988). Other studies employing both self-report and behavioral observational methods have reported similar findings (e.g., Sanders, Halford, & Behrens, 1999).

Some studies suggest that a consideration of both parental marital status and the degree of interparental conflict is necessary to explain offspring's later romantic outcomes. Specifically, Long (1987) found that the effects of interparental conflict on young women's predictions of whether or not they would marry and the quality of their future marriages weakened significantly when parental marital status was taken into account. Similarly, Herzog & Cooney (2002) found parental divorce in childhood to be linked with young adults' deficient romantic communication, especially for women. Notably, the authors found interparental conflict, regardless of parental marital status, to be related to poorer communication across all social relationships, including those that were romantic in nature. Taken together, the results of these studies emphasize the need to simultaneously measure both interparental conflict and parental divorce but to consider them separate constructs. Unfortunately, a number of studies interpret parental marital status as an indicator of the level of interparental conflict (e.g., Webster, Orbuch, & House, 1995), although evidence clearly indicates that divorce is not always accompanied by high levels of conflict (e.g., Amato & Booth, 1996).

*Parenting and the parent-child relationship.* Another body of literature focuses on parenting and the parent-child relationship as the key processes by which parental divorce in childhood influences later romantic relationships. It is well-documented that divorce is associated with deficits in parenting and lower-quality parent-child relationships, including diminished warmth and supportiveness, inconsistent discipline, and a lack of effective communication (Astone & McLanahan, 1991; Hetherington, Cox, & Cox, 1985; Simons & Johnson, 1996). Parental socialization theory proposes that problematic parenting following divorce negatively impacts children's later romantic relationship quality, through its effects on the development of romantic competence (Amato, 1996; Burns & Dunlop, 2000). This perspective emphasizes the role of parenting in actively teaching children the necessary skills to resolve conflict, regulate emotion, and build interpersonal trust (Maccoby & Martin, 1983). Researchers have argued that the optimal balance of parental support combined with opportunities to develop autonomy is central to the development of relationship competence and a greater propensity for romantic intimacy (e.g., Collins & Sroufe, 1999; Gray & Steinberg, 1999).

Indeed, Baumrind (1967; 1991) concluded from her studies that three dimensions of parenting, including warmth/supportiveness, monitoring, and the encouragement of autonomy, are integrally linked to the development of children's interpersonal competence, the maintenance of healthy relationships, and the absence of problem behaviors (Baumrind, 1991; Maccoby & Martin, 1983). In addition, there is evidence to suggest that parents effectively "coach" children through the emotion regulation process, provide negative or positive reactions to emotional expression, and offer specific strategies for regulating emotion, all of which contribute to successful interpersonal interactions (e.g., Morris et al., 2007). If parents are overly harsh, critical, or rejecting, it is speculated that children will lack the ability to regulate emotion effectively and will therefore experience more relationship problems (Contreras et al., 2000).



Hostile or ineffective parenting is not the only mechanism through which children may be taught maladaptive interpersonal behaviors; there is a similar body of literature suggesting that an overall lack of parental socialization, often due to divorce, exerts equally detrimental effects. For example, it has been proposed that deficits in parental supervision and control due to the absence of one parent can be damaging to the child's later ability to form and maintain successful romantic relationships, possibly through the lack of assistance with mate selection and decreased parental support in the initial stages of young adults' romantic relationships (Amato, 1993; Glenn & Kramer, 1987; Webster, Orbuch & House, 1995).

Like socialization theory, attachment theory emphasizes the role of parenting in impacting children's later romantic involvement. In addition, this theoretical framework also suggests that the parent-child relationship influences children's romantic outcomes. Specifically, Bowlby (1958; 1988; 1989) posited that within the context of children's early relationships with their caregivers, internal working models or mental representations of relationships are formed and continuously influence children's beliefs, emotions, behavior, and expectations. It has been suggested that parenting consisting of support, sensitivity, and warmth is associated with children who are more secure and comfortable in exploring their environments. Conversely, parents who are inconsistent, hostile, or rejecting tend to have children who are insecure and less successful at developing autonomy. Over time, children's representations of their relationships with parents become the framework for their experiences in future romantic relationships, such that these models determine their comfort with intimacy and commitment and their ability to trust and maintain openness with their romantic partners (Black & Schutte, 2006; Mikulincer & Shaver, 2007; Owens et al., 1995). Thus, attachment theory emphasizes the implications of both the parenting provided and the quality of the bi-directional relationship between the parent and child for children's later outcomes.

Although these theorists emphasize the strong implications these early experiences have for later relationships, it is important to note that current experiences in relationships may modify or shape the developmental trajectory so that early attachment bonds do not solely dictate later outcomes (Dinero et al., 2008; Roisman et al., 2002; Simpson et al., 2007). In this way, partners who are trusting, supportive, and responsive may foster relationship security in individuals who were previously classified as insecure. Attachment theory further indicates that the role of parents as primary attachment figures in childhood shifts to peers in adolescence with a gradual replacement by a romantic partner in early adulthood (Feeney, 2004; Fraley & Davis, 1997; Hazan & Shaver, 1994; Hazan & Zeifman, 1994). Hazan & Shaver (1990) argued that a secure romantic attachment in adulthood includes a healthy balance between intimacy and autonomy, such that the individual can sustain a comfortable degree of closeness with a romantic partner but is able to also maintain emotional independence. Insecure attachments are characterized by a disruption in that balance, such that either the individual becomes over-dependent on partners at the expense of personal autonomy or sacrifices emotional closeness with partners in an attempt to foster independence.

There is ample evidence to suggest that post-divorce parenting and the parent-child relationship have important implications for the outcomes of offspring. For instance, it is well-established that positive parent-child relationships following divorce are positively associated with children's short- and long-term adjustment (e.g., Forgatch, Patterson, & Skinner, 1988; Summers et al., 1998). Furthermore, several intervention studies have found that post-program improvements in parenting account for decreases in adjustment problems following parental divorce (Forgatch & DeGarmo, 1999; Wolchik et al., 1993; 2000; Zhou et al., 2008). Most relevant to the current investigation, some studies find that positive post-divorce parenting and high-quality parent-child relationships can buffer children from the development of negative

romantic outcomes later in life. For example, a study by Crowell, Treboux, & Brockmeyer (2009) found that among young adults who experienced parental divorce in childhood, those who were characterized as securely attached in adulthood were less likely to seek a divorce in the early years of marriage. Given the consistent finding that attachment classifications within the individual are consistent from childhood to adulthood (e.g., Waters et al., 2000), this can be interpreted as support for the proposition that the early parent-child relationship contributes to later romantic attachment, which can serve as a buffer that protects offspring from later divorce. Other studies have found that adults who classify their attachment style as insecure were more likely to have experienced parental divorce in childhood (Hazan & Shaver, 1987; Summers et al., 1998), suggesting that parental divorce is associated with negative romantic attachment outcomes. Sprecher, Cate, & Levin (1998) similarly found that adult female offspring of divorced parents were less likely to endorse a secure attachment style and more likely to exhibit avoidant attachment, as compared to adult females that did not experience parental divorce. However, males who were raised in divorced and never-divorced families did not differ in their levels of secure or avoidant attachment. Importantly, few studies have directly examined parent-child attachment as a factor that explains the link between parental divorce and offspring's negative romantic outcomes. King (2002) found that the effect of parental divorce on young adult's ability to trust romantic partners became nonsignificant once the quality of parent-adolescent relationships was taken into account, suggesting that parental divorce may influence children's later romantic relationships through its impact on the parent-child relationship.

In addition, a few studies have directly examined the contribution of parental socialization to the later romantic relationships of children of divorce. For example, Reese-Weber & Bartle-Haring (1998) found that conflict resolution strategies employed during mother-adolescent and father-adolescent interactions predicted resolution strategies used by the

adolescents during conflicts with romantic partners. These findings can be applied to adolescents from both divorced and non-divorced families (Reese-Weber & Kahn, 2005). Amato (1996) additionally found problematic interpersonal behaviors to mediate the intergenerational transmission of divorce. Specifically, he identified excessive anger, hostility, and communication deficits as the mechanisms responsible for the increased likelihood of marital dissolution experienced by children of divorced parents, and he attributed the development of these maladaptive interpersonal behaviors to poor parental socialization. Unfortunately, this hypothesis has not been tested.

*Joint contributions of interparental conflict, parenting, and the parent-child relationship.*

Fewer studies have tested the relations among these family contextual variables and romantic outcomes in one comprehensive study, and those that have done so have tested these hypotheses in non-divorced families. For example, Conger et al. (2001) tested a prospective model assessing the impact of both interparental conflict and parenting on offspring's later romantic outcomes. They found parenting, but not interparental conflict, to impact participants' later interpersonal competence, which in turn affected the quality of their romantic relationships. In the 2005 study, Donnellan, Larsen-Rife, and Conger extended these findings to a later period of young adulthood, using the same sample and also controlling for individual differences in personality traits. In their longitudinal study, Whitton et al. (2008) found that both interparental conflict and hostility in family interactions during adolescence predicted men's poorer marriages 17 years later, mediated through the effects of hostility in their marital interactions.

A related group of studies assessed the mediational pathway leading from interparental relationship variables to offspring's romantic outcomes, through the mechanism of parenting or the parent-child relationship. These studies also included only non-divorced families. In addition, these investigations relied on cross-sectional data or assessed only specific aspects of the

interparental, parent-child, or romantic relationship, or measured only a specific component of parenting. For example, Steinberg, Davila, & Fincham (2006) tested adolescent girls' attachment security with parents as a mediator of the effects of interparental conflict on girls' current romantic experiences and expectations for future romantic relationships. Unfortunately, the study was cross-sectional, a more inclusive measure of the parent-child relationship was not included, and actual romantic outcomes in young adulthood were not assessed. Similarly, Scharf & Mayseless (2001) found parent-child relationships to mediate the effects of parents' reported marital satisfaction on young men's capacity for romantic intimacy four years later. Although this study was longitudinal, it did not capture the level of interparental conflict in the variable assessing parental marital satisfaction and only measured the capacity for intimacy as a romantic outcome.

Other studies assessed whether the interparental relationship, parent-child relationship, or parenting received by child was more strongly predictive of children's later romantic outcomes, but many of the same limitations apply. For instance, Feldman, Gowen, & Fisher (1998) measured both parenting and parents' marital satisfaction as predictors of offspring's romantic intimacy six years later and found both authoritative parenting and mothers' marital satisfaction to be related to intimacy in the young adults' romantic relationships. Like in the Scharf & Mayseless (2001) study, parental marital satisfaction cannot serve as an indicator of the level of conflict and intimacy does not encompass all relevant aspects of romantic involvement. Darling et al. (2008) assessed the effects of both interparental conflict and parent-adolescent conflict on conflict behaviors employed in adolescents' romantic relationships, and found consistency in physical aggression across parent-child and romantic settings. Furthermore, the authors found that conflict resolution behaviors employed in the interparental relationship were related to the same behaviors used by adolescents in their interactions with romantic partners. As in many of the

other studies, the assessments were cross-sectional and broader measures of relationship quality were not administered. In addition, all of the aforementioned studies included only non-divorced families, and children of divorce are an especially important population to study, given their increased risk for developing adjustment and interpersonal problems that often persist into adulthood (e.g., Amato & Keith, 1991; Kessler et al., 1997).

Reese-Weber & Kahn (2005) compared divorced and non-divorced families in their study assessing parent-child conflict resolution behaviors as a mediator of the relation between interparental conflict and children's romantic conflict resolution behaviors. They found that the mediational model applied to participants from both family types, but only mother-child conflict behaviors served as a mediator. Importantly, this study was cross-sectional and assessed only current parent-child and interparental relationship functioning. In addition, only undergraduate students' perceptions of all constructs were measured. Lastly, comprehensive measures of the parent-child and romantic relationships were not obtained, and there is reason to speculate that relationship quality is derived of more than conflict resolution. Similarly, Hayashi & Strickland (1998) found in their study of young adult children of divorce that retrospective reports of interparental conflict and a positive parent-child relationship in childhood predicted satisfaction, intimacy, and trust within the context of the current romantic relationship. Although this study assessed the quality of parent-child and interparental relationships early in development, it was done retrospectively. This study was also cross-sectional.

*Limitations of existing studies.* Several limitations in the literature reviewed above prevent one from generating firm conclusions regarding the role of divorce, conflict, parenting, and parent-child relationships in the development of romantic relationships. For instance, many of these studies are cross-sectional and include only retrospective reports of family relationships in childhood (e.g., Hayashi & Strickland, 1998; Toomey & Nelson, 2001). It has been suggested that

retrospective data is often influenced by current experience, which may result in biased reports (Brewin, Andrews, & Gotlib, 1993). Cross-sectional studies also prohibit causal inferences, due to the lack of temporal precedence in the measurement of variables. Furthermore, a number of these studies employed the reports of only one informant to assess the interparental and parent-child relationships and parenting (e.g., Reese-Weber & Bartle-Haring, 1998). Although it seems reasonable that the individual's perception of a relationship or of parenting has the greatest impact on his or her later behaviors and outcomes, studies that compared several raters' observations of parenting and interparental behaviors would have been more methodologically sound. In regard to parenting, it would be important to assess whether the child perceives that he or she is parented in a way that is consistent with the parent's report of parenting behaviors employed. Proponents of attachment theory would argue that the child's perceptions of the relationship and of parenting are most important in dictating children's expectations for future relationships, but socialization theory would seem to suggest that the parent's perception is also important, given this theory's emphasis on parents as active teachers of essential relationship skills.

Similarly, many of these studies included only one partner's report of current romantic relationship characteristics (e.g., Cui, Fincham, & Pasley, 2008; Reese-Weber & Bartle-Haring, 1998). It seems reasonable to assume that both partners' opinions and characteristics contribute to the nature and quality of the relationship, and it would be important to assess for consistency in the two partners' perceptions of the current relationship. According to research on assortative mating, there is evidence to suggest that individuals tend to marry those who are similar to them on a number of characteristics (Eysenck, 1990; McCrae et al., 2008). Although there is controversy regarding the specific traits that spouses tend to share, some researchers have speculated that having two parents with psychopathology or problematic interpersonal skills may

place offspring at an increased risk of developing the same negative qualities (D'Onofrio et al., 2007; Heath et al., 1985). This warrants inclusion of information on both partners in future studies and also suggests that a more extensive examination of the factors underlying assortative mating is necessary. For example, if primarily environmental variables were found to underlie assortative mating, it could be argued that children acquire interpersonal skills within the family context, and theories of attachment, social learning, and parental socialization would be applicable. Sanders, Halford, & Behrens (1999) also suggested that "partner selection effects" may play a role, such that offspring of divorced parents may view negative or conflicted parental interactions to be normative and thus may select partners who exhibit associated behaviors. Conversely, if genetic variables are more influential, the risk for relationship problems would be inherited, possibly through maladaptive personality traits, rather than transferred to subsequent generations through parenting or parental modeling (D'Onofrio et al., 2007; Eaves & Gale, 1974).

Furthermore, many of the aforementioned studies assess only specific components of the interparental, parent-child, or romantic relationship (e.g., Feldman, Gowen, & Fisher, 1998; Scharf & Mayseless, 2001). Although relationship characteristics such as the level of conflict, attachment security, and relationship satisfaction are important, they do not independently encompass all pertinent aspects of relationship quality. Furthermore, many of these studies use convenience samples of undergraduate students (e.g., Sprecher, Cate, & Levin, 1998), which may inhibit the generalization of results due to the restriction of access to participants of diverse socioeconomic backgrounds, geographic locations, and ages. Another limitation is that many of these studies fail to assess for gender differences in predictor variables, outcomes, and hypothesized mechanisms of influence. Studies show that women and men may be differentially affected by parental divorce, both in regard to their interpersonal behaviors (Mullett & Stolberg, 2002) and in their risk for marital dissolution (Bumpass, Martin, & Sweet, 1991). For example,



Mullett & Stohlberg (2002) found women's communication and conflict resolution behaviors to be strongly affected by the experience of parental divorce, whereas men's interpersonal behaviors did not appear to be influenced by this variable. The authors speculated that the responsible mechanism could be either interparental conflict or diminished parenting but did not test these hypotheses. Conversely, Cummings, Davies, and Simpson (1994) found interparental conflict to be correlated with coping efficacy beliefs in boys and girls, but they found both interparental conflict and coping efficacy to have greater implications for adjustment in boys than in girls. Scharf & Mayseless (2001) found parent-child relationships to be linked with romantic intimacy through its effect on social competence, but only tested this model in males. Lastly, Story et al. (2004) found parental divorce to be linked with aggressive behavior in romantic relationships for women, but for men, parental divorce was not predictive of interpersonal behavior. Rather, only negative interactions in the family-of-origin during childhood were related to men's later behavior in romantic relationships.

#### *The Present Study*

This study intends to compensate for the limitations of previous investigations by using a prospective longitudinal design to assess the implications of family environmental variables for the romantic outcomes of young adults from divorced families. The present investigation of a sample of divorced families will include measurements at three different time points, spanning a period of 15 years. This will offer temporal precedence to the variables of interest, which enables a more rigorous design and thus a firmer foundation for making causal inferences. Family relationship variables, including aspects of parenting and the interparental relationship, will be measured when participants are in late childhood and will be assessed using both child- and parent-report methods. Many of the studies reviewed in this paper have assessed parenting and the interparental relationship in late childhood and early adolescence (e.g., Conger et al., 2001;

Steinberg, Davila, & Fincham, 2006), which is important because this is a period during which children are impressionable to family influences (Laible & Thompson, 2007). In addition, it is during this stage that parents exert an influence on children's choice of peers and their ability to develop meaningful peer relationships (Parke & Bhavnagri, 1989). Romantic outcomes will be measured when participants are young adults and will include participant and romantic partner reports of romantic attachment and current relationship behaviors, problems, and satisfaction. A number of studies have also assessed romantic outcomes during the early adulthood period (e.g., Scharf & Mayselless, 2001; Whitton et al., 2008), in support of the proposition that this period has implications for the development of romantic intimacy (Arnett, 2000; Berscheid, 1999). Given the large body of literature devoted to studying the mechanisms through which parental divorce, interparental conflict, and parenting may impact offspring's later romantic involvement, two potential mediators of the effect of family relationship variables on offspring's romantic outcomes will also be tested. Specifically, I will examine, when participants are in adolescence, self- and parent-reported peer competence and self-reported coping efficacy. It is important to measure peer competence at this point because it represents a stage in development during which children's peer relationships become more salient and their interpersonal skills begin to have implications for later romantic outcomes (Collins & Sroufe, 1999; Furman & Wehner, 1994). Coping efficacy is measured at this developmental stage in accordance with studies that have examined parenting and interparental conflict as predictors of coping efficacy during the late childhood period (Cummings, Davies, & Simpson, 1994; Gerard et al., 2005; Smith et al., 2006; Zhou et al., 2008). In addition, Cunningham (2002) found coping efficacy to be an essential part of the coping construct in early adolescence.

In this study, it is important to measure parenting, as opposed to the parent-child relationship, because this variable is predicting the development of the skills needed to foster

successful romantic relationships in young adulthood. Although the parent-child relationship is important in determining children's later romantic outcomes, as reviewed earlier, parental socialization theory indicates that the parent's behavior is most relevant to children's acquisition of interpersonal and coping skills, which are hypothesized to contribute to subsequent romantic relationship quality. Thus, the present study will include both parent- and child-reports of parenting behavior, as it leads to children's peer competence and coping efficacy in adolescence.

*Mediator one: Peer competence.* As discussed earlier, it is well-established that parental divorce is associated with maladaptive interpersonal behaviors in the context of romantic relationships, including poor communication, a lack of conflict resolution, increased anger and hostility, and infidelity (Amato, 1996; Mullett & Stolberg, 2002; Webster, Orbuch, & House, 1995). Importantly, this lack of interpersonal competence has also been conceptualized as an explanatory mechanism for the intergenerational transmission of divorce (Amato, 1996; Story et al., 2004). In the present study, it is hypothesized that peer competence measured in adolescence is an indirect indicator of the interpersonal skills that are pertinent to romantic relationships later in life. This is based on research suggesting that children's ability to successfully regulate, interpret, and communicate emotion in relation to others is strongly linked to their popularity and friendships with peers, also known as peer competence (Dunsmore et al., 2008; Spinrad et al., 2006). Importantly, Gest et al. (2006) also found children with a reputation for being "popular leaders" to be more socially and romantically competent in young adulthood, even when controlling for level of social competence in childhood. This suggests that peer competence measured in childhood may contribute to the development of romantic competence and thus romantic relationship quality later in life. In support of this proposition, Carroll, Badger, & Yang (2006) found that marital competence is comprised of both interpersonal (conflict resolution and communication) and intrapersonal (emotion regulatory and personality) components, both of

which are hypothesized to develop prior to adulthood. In addition, they found that the overarching construct of marital competence is strongly linked with romantic relationship quality, through the influence of conflict behavior. Unfortunately, previous studies have not examined the linkages between peer, rather than romantic or marital, competence and romantic outcomes in children of divorce.

Despite the lack of research assessing the implications of peer competence, several studies have examined interpersonal behaviors in children of divorce as a predictor of their romantic relationship quality. In an innovative four-year longitudinal study of the intergenerational transmission of marital problems, Story et al. (2004) found that the impact of parental divorce on women's later marital dysfunction was mediated by increases in verbally and physically aggressive behavior in their marriages. In contrast, men's retrospective reports of negative family interactions in childhood predicted an increased likelihood for their own marital dissolution in young adulthood, and this relation was mediated by observed anger and hostility in their marital interactions. These findings lend support to the hypothesis that problematic interparental interactions influence offspring's later marital quality through the mechanism of romantic competence. This hypothesis is supported by social learning theory (Bandura, 1962) and suggests that the relationship behaviors that contribute to interpersonal competence are modeled by parents early in development. Unfortunately, in this study and in others (e.g., Cui, Fincham, & Pasley, 2008), both offspring from non-divorced and divorced families were included. As noted by Cui et al. (2008), the incidence of parental divorce and interparental conflict are often strongly correlated, and thus the effects of divorce found in many studies may be the result of shared variance between the two constructs. The results of these studies lend support to the hypothesis that parental divorce may be linked with decreased peer competence, through the influence of interparental conflict, but this proposition has yet to be tested.

In addition, it is unclear from the findings of these studies and others (e.g., Amato, 1996) whether parenting also plays a role in the link between parental divorce and offspring's later romantic competence. Parental socialization theory suggests that warm, supportive parenting facilitates the development of interpersonal competence (Amato, 1996; Burns & Dunlop, 2000), which may then contribute to the success of romantic relationships. Other studies have tested the prospective relations between parenting, social competence, and young adults' romantic outcomes (e.g., Scharf & Mayseless, 2001), but rarely in divorced families. The only study to approximate this model in the context of parental divorce was cross-sectional, and found that low-quality mothering and interparental cooperation fully mediated the effects of parental divorce on young adults' fears of intimacy in romantic relationships (Gasper et al., 2008). The present study will extend previous findings by employing a longitudinal design and by simultaneously assessing the influence of interparental conflict and parenting in childhood on offspring's later romantic outcomes, through the influence of peer competence in adolescence.

*Mediator two: Coping efficacy.* Lastly, there is some evidence to suggest that coping efficacy may mediate the effects of interparental conflict and parenting on the romantic outcomes of young adults who experienced parental divorce in childhood. Coping efficacy has been defined as one's perception of his or her ability to deal successfully with the demands of a stressor and the emotional reaction that follows, based on recalled experiences with stressful situations in the past (Sandler et al., 2000). Although less research has been done in regard to coping efficacy, it has been shown that more active coping strategies are linked with children's positive adjustment to stressful events, specifically in the context of parental divorce (Krantz et al., 1985; Sandler, Tein, & West, 1994). In addition, Sandler et al. (2000) found children's coping efficacy following parental divorce to mediate the effects of active coping efforts on psychological problems, such that higher levels of active coping lead to increased coping efficacy, which is related to lower

levels of internalizing problems. Unfortunately, no studies to date have examined coping efficacy as a predictor of romantic outcomes in offspring of parental divorce, but some theory from outside of the divorce literature suggests that this may be the case. For example, attachment theory suggests that maladaptive coping may contribute to anxious or avoidant attachments with romantic partners (Rodrigues & Kitzmann, 2007). In addition, it has been theorized that low levels of coping efficacy might cause romantic partners to exert less effort to resolve romantic conflict, to use less effective conflict resolution strategies, and to exhibit more negative affect towards their partner when engaged in conflict (Cui, Fincham, & Pasley, 2008; Kennedy, Bolger, & Shrout, 2002). As a result, these researchers posited that the relationship would be plagued by persistent, unresolved conflict and would be perceived by partners as less satisfying. Bradbury & Fincham's (1990) "cognitive-contextual" theoretical model supports this proposition, as it suggests that beliefs about efficacy would influence romantic relationship quality through their impact on conflict behavior.

There exists some empirical support for this general theoretical model. As described earlier, Cui, Fincham, & Pasley (2008) found coping efficacy to mediate the effects of interparental conflict on undergraduates' romantic outcomes, but they included participants from both divorced and non-divorced families. Studies of families experiencing divorce have found that high levels of interparental conflict are related to children's reduced ability to cope with the divorce (Bing, Nelson, & Wesolowski, 2009; Shelton & Harold, 2007; Whiteside & Becker, 2000), but this hypothesis has not been tested with coping efficacy. Two studies found interparental conflict to be related to decreased coping efficacy in children, but both were conducted with only non-divorced families (Cummings, Davies, & Simpson, 1994; Gerard et al., 2005). In addition, none of these studies extended the findings to examine the subsequent impact of coping efficacy on the romantic relationships of children of divorce. A study by Rodrigues &

Kitzmann (2007) did extend the effects of interparental conflict on coping to young adults' later romantic outcomes, but included only participants from non-divorced families. Specifically, their study found that late adolescents' involuntary disengagement coping, which was defined as uncontrollable, automatic responses to stress, mediated the effects of interparental conflict on these individuals' anxious attachment behaviors in romantic relationships. No studies to date have assessed, in a sample of offspring who experienced parental divorce, the impact of interparental conflict on offspring's romantic outcomes, through the mechanism of decreased coping efficacy.

Parental divorce may also influence children's coping efficacy through its effects on parenting. Short (2002) concluded from his study of college students that parental divorce in childhood was linked with the use of more avoidant, and less adaptive, coping strategies in young adulthood. The author suggested that this may be the result of parental modeling, as a study by Holloway & Machida (1991) found that the tendency for divorced parents to employ avoidant coping strategies themselves was related to their deficient parenting. Smith et al. (2006) argued that parental socialization may also play a role; they found parental supportiveness and consistency in parenting to be concurrently related to children's coping efficacy. In addition, Zhou et al. (2008) found authoritative parenting, which they defined as a balance between parental warmth and control, to be linked with children's increased coping efficacy over three years later, but both of these studies were conducted with mostly non-divorced families. Studies have shown that positive post-divorce parenting is associated with adaptive child coping (e.g., Whiteside, 1998), and that resilient coping can serve to protect children from negative adjustment outcomes (e.g., Wallerstein, 1983) but there is no research that has examined coping efficacy as a mediator of the effects of post-divorce parenting on children's later romantic outcomes. The present study will extend previous findings by assessing whether the coping efficacy of

adolescents of divorce serves as a mediator of the effects of interparental conflict and parenting in childhood on romantic relationship quality in young adulthood.

*Summary.* In sum, there is evidence to suggest that, in the context of parental divorce, interparental conflict and parenting may impact the romantic adjustment of young adults. In addition, some research indicates that peer competence and coping efficacy may mediate the effects of interparental conflict and parenting on these later romantic outcomes, both in non-divorced and divorced families. In the current investigation, the effects of interparental conflict and parenting are investigated within a sample of divorced families. These variables will be assessed longitudinally, such that family relationship variables are measured prior to the mediators, and the mediators are measured prior to romantic outcomes (see Models 1 and 2). Given the evidence suggesting that males and females respond differently to parental divorce, interparental conflict, and parenting, gender will be examined as a moderator of the links between the predictors (interparental conflict and parenting) and the mediators (peer competence and coping efficacy) as well as of the links between the mediators and the romantic outcomes.

Specifically, I predict that lower levels of interparental conflict and higher levels of positive parenting in childhood will be related to higher levels of peer competence and coping efficacy six years later. Further, I hypothesize that higher levels of coping efficacy and peer competence in adolescence will be linked with more secure romantic attachment, a greater likelihood of being involved in a romantic relationship, more satisfaction in the romantic relationship, fewer romantic relationship problems, and greater confidence in the future of the relationship in young adulthood. It will be tested whether these pathways are moderated by gender. However, because previous studies have found contradictory results regarding the precise pattern of relations for the two genders (e.g., Cummings, Davies, & Simpson, 1994; Mullett &



Stolberg, 2002; Scharf & Maysel, 2001; Story et al., 2004), no specific predictions will be made regarding gender differences.

## Method

### *Participants*

The sample used in the present investigation was part of a study assessing the efficacy of a preventive intervention intended to decrease mental illness in children from divorced families (Wolchik et al., 2000; 2007). The current study participants included 194 families of the initial 240 who were present at the initial wave of data collection. At Wave 1, children in this investigation were between the ages of nine and 12 ( $M = 10.34$ ,  $SD = 1.1$ , 50% females) and their residential mothers were, on average, 37.4 years of age ( $SD = 4.8$ ). Fifteen years later, the children's romantic partners were also interviewed ( $n = 121$ ). Children and their mothers completed a number of assessments prior to randomization to condition and several times following the preventive intervention, including, but not limited to: demographic variables, mental health problems, interparental conflict, parenting, peer competence, and coping efficacy. In the present study, only pre-test, six-year follow-up, and 15-year follow-up assessments were used. In the original study, participants ( $n = 240$ ) were assigned after pretest to one of three conditions: a parenting skills intervention for mothers only ( $n = 81$ ) a parenting skills intervention for mothers plus a coping skills intervention for children ( $n = 83$ ), or a literature control ( $n = 76$ ). At pretest, no differences were found across conditions on measures of mental health problems or demographic variables. Most mothers were Caucasian (88.7%); the remainder were Hispanic (6.7%), African American (2.1%), Asian/Pacific Islander (.5%), or of another ethnic background (2.1%). At Wave 1, 47% of mothers had completed some college. The median household annual income for mothers was between \$20,001 and \$25,000. In 60.8% of families, the mother had sole legal custody, 37.1% of families had joint legal custody, and in 2.1% of families, custody was

split evenly. At pretest, families had been separated for a mean of 26.7 months and divorced for a mean of 12.3 months. Families only participated in the study if they completed at least 80% of items on any variable in the study, at any point of assessment.

At six-year follow-up, children were 15 to 19 years old ( $M = 16.9$ ,  $SD = 1.1$ ; 50.5% female). At this point, families had been separated for a mean of 8.4 years ( $SD = 1.4$ ) and divorced for a mean of 7.2 ( $SD = .55$ ) years. At this assessment, 80% of children lived with their mothers, 11% lived with their fathers, and 9% lived independently. For residential mothers, at the six-year follow-up, median household annual income was between \$45,001 and \$50,000. Analyses of participant attrition were conducted to determine whether families who remained in the study at the six-year follow-up ( $n = 218$ ) differed from those who attritted ( $n = 22$ ) on demographic and mental health variables. These analyses revealed no significant attrition main effects or condition (mother vs. mother plus child vs. control) X attrition interaction effects.

At 15-year follow-up, young adults were 24 to 27 years old ( $M = 25.6$ ,  $SD = 1.2$ , 50% female). At this assessment, young adults could endorse multiple ethnicities, and 93.8% identified themselves as primarily White, 2.6% identified themselves as primarily African American, 2.1% identified themselves as primarily Asian, and 1.5% identified themselves as primarily American Indian or Alaskan Native. Furthermore, 11.3% characterized themselves as Hispanic or Latino. A total of 194 young adults, their mothers, and their romantic partners (if they were romantically involved;  $n = 121$ ) participated in the present study. Married young adults ( $n = 45$ ) were also included in the study. Of the 194 young adults interviewed, 139 indicated that they had been involved with a romantic partner for three months or longer. Of these young adults, 128 consented to having their romantic partners interviewed, and 121 romantic partners completed interviews. The mean age of the romantic partners who completed interviews was 27.1 years ( $SD = 3.9$ ). Young adults who indicated that they had been in a romantic relationship for less than

three months were not asked to consent to the interview of their romantic partner, and thus their romantic partners were not interviewed. Those young adults were not coded as being currently romantically involved, due to the intention for the present study to assess stable, committed romantic relationships.

*Recruitment and eligibility.* Families were recruited primarily through court records of divorce decrees in a large Southwestern metropolitan county. The remainder of participants was recruited through the media or, less commonly, referrals. Families were considered eligible to participate in the study if the divorce had occurred within two years of the pretest assessment, the family had a child between the ages of nine and 12, children resided with their mother at least 50% of the time, the custody arrangements were expected to remain the same for the duration of the intervention, the mother had not remarried and did not plan to remarry during the course of the intervention, the mother did not have a live-in partner, neither the mother or the child were currently receiving psychological services, and both the mother and child spoke fluent English. In families that had more than one child, one was randomly selected to participate in the study. Due to the longitudinal nature of the study and the presence of a child intervention condition, families were excluded if they planned to leave the surrounding area within six months of the intervention, if child participants had been diagnosed with a learning disorder or mental disability, or if children who had been diagnosed with attention deficit hyperactivity disorder were not taking medication to manage symptoms of inattention and/or hyperactivity. Children who met criteria for clinical depression ( $> 17$ , as measured by the Children's Depression Inventory, Kovacs, 1981), externalizing problems ( $> 97^{\text{th}}$  percentile, as measured by the Children's Behavior Checklist, Achenbach & Edelbrock, 1981), or exhibited suicidal ideation were referred for mental health services and excluded from the study.

Of the 315 families who were assessed at pretest, 30 of the children were referred for treatment, 49 families were determined to be ineligible, and 26 families declined participation between pretest and random assignment to condition. Two hundred and forty families were assigned to condition, which represented 36% of eligible families. Analyses comparing families who declined participation in the intervention (of all families who were assessed at pretest,  $n = 62$ ) to families who agreed to participate revealed that those who participated had higher incomes, fewer children, and higher maternal education than those who refused. Analyses showed no differences between refusers and acceptors on measures of children's mental illness (Wolchik et al., 2002). Most commonly cited reasons for declining to participate included low interest in the program, a lack of time availability, absence of transportation to program sessions, and conflicting engagements on the dates of sessions.

#### *Procedure*

Families were interviewed at six waves: Wave 1 (pretest or pre-intervention, prior to random assignment to condition), Wave 2 (posttest or post-intervention), Wave 3 (three months following the intervention), Wave 4 (six months following the intervention), Wave 5 (six years following the intervention), and Wave 6 (15 years following the intervention). In the present study, only data from Waves 1, 5, and 6 were used. All participants, including children/young adults, mothers, and romantic partners, were interviewed separately by trained interviewers, who explained confidentiality policies and obtained signed consent and assent forms from adult and child participants, respectively. Families received \$45 compensation at Wave 1 and parents and children each received \$100 at Wave 5. At the 15-year follow-up, two sessions were conducted with young adults, and these participants were compensated \$100 per session. One session was conducted with romantic partners, who were paid \$100 for participation.

#### *Measures of Predictors: Pretest*

*Interparental conflict.* Internal consistencies for all measures can be found in Table 1.

Overall level of interparental conflict was measured at pretest with mother- and child-reports on the Frequency and Intensity subscales of the Children's Perception of Interparental Conflict Scale (Grych, Seid, & Fincham, 1992). At pretest, Cronbach's alpha for the mother report was .89 (13 items total, e.g., "Within the last month, [target child] often saw us argue"), and Cronbach's alpha for the child report was .82 (13 items total, e.g., "I often see my parents arguing"). In addition, mothers completed the 10-item O'Leary Porter Overly Hostility Scale (Porter & O'Leary, 1980) at pretest to assess the amount that parents openly argued in front of their children (e.g., "Within the last month, how often did you or your ex show physical hostility in front of [target child]?"). Alpha for this scale at pretest was .86.

*Parenting.* To assess maternal warmth, mothers and children completed the 32-item Acceptance and Rejection subscales of Schaefer's (1965) Children's Report of Parenting Behavior Inventory at pretest. Cronbach's alpha for this scale, measured at pretest, was .86 for the child-report version (e.g., "Your mother smiles at you often") and .86 for the mother-report version (e.g., "You made [target child] feel better"). Maternal discipline was assessed at pretest using the mother- and child-report versions of the eight-item Consistency of Discipline subscale of Schaefer's (1965) Children's Report of Parenting Behavior Inventory. Cronbach's alpha for this scale, measured at pretest, was .74 for the child-report version (e.g., "Your mother changes the rules you are supposed to follow") and .82 for the mother-report version (e.g., "You enforced rules depending on your mood"). In addition, mothers responded to the five items on inappropriate discipline, nine items on appropriate discipline, and 11 items on follow-through from the Oregon Discipline and Monitoring Scales (Oregon Social Learning Center, 1991). At pretest, alphas for the inappropriate discipline (e.g., "When [target child] misbehaved, how often did you raise your voice/scold?"), appropriate discipline (e.g., "When [target child] misbehaved,

how often did you discuss the problem?”), and follow-through (e.g., “How often did you actually punish [target child]?”) items was .75, .59, and .78, respectively.

*Measures of Mediators: Six-Year Follow-Up*

*Peer competence.* Popularity and competence in peer relationships was measured at pretest and the six-year follow-up using the seven-item mother- and child-report versions of the Peer Competence subscale of the Coatsworth Competence Scale (Coatsworth & Sandler, 1993). Cronbach’s alpha for the child-report version of this subscale was .73 at pretest and .76 at the six-year follow-up (e.g., “Compared to others your age, you have lots of friends”). Alpha for the mother-report version was .82 at pretest and .79 at the six-year follow-up (e.g., “Other teens asked your child to do things with them very often”).

*Coping efficacy.* Satisfaction with the way problems were handled in the past and perceived effectiveness at handling future problems were assessed at pretest and the six-year follow-up using children’s reports on the Coping Efficacy Scale (Sandler et al., 2000). The seven-item measure yielded an alpha of .74 at pretest and an alpha of .82 at the six-year follow-up (e.g., “In the future, how good do you think you will usually be in handling your problems?”).

*Measures of Outcomes: 15-Year Follow-Up*

*Involvement in a Romantic Relationship.* At the 15-year follow-up, all young adults were asked the question, “Do you have a romantic partner that you’ve been involved with for at least 3 months?” to which they answered either “yes” or “no.”

*Romantic Attachment.* At the 15-year follow-up, all young adults responded to questions about romantic attachment, regardless of whether they were currently involved in a romantic relationship. To assess retrospective reports of relationship beginnings and breakups within the past three years, young adults completed the four-item History of Romantic Relationships Scale (Kirkpatrick & Hazan, 1994). At the 15-year follow-up, Cronbach’s alpha for this measure was

.73 (e.g., “In the past three years, how many times have you had a romantic relationship end as a result of your partner breaking up with you?”). The number of romantic relationship breakups has been linked with attachment security (Kirkpatrick & Hazan, 1994).

Young adults also responded to the 36-item Experiences in Close Relationships Scale (Brennan, Clark, & Shaver, 1998) to assess attachment-related anxiety and avoidance in romantic relationships. This measure did not specifically assess attachment in the current romantic relationship; rather, it provides a measure of the individual’s romantic attachment in general. At the 15-year follow-up, alphas for the Attachment Anxiety and Attachment Avoidance subscales were .93 (e.g., “I worry about being abandoned”) and .95 (e.g., “I get uncomfortable when a romantic partner wants to be very close”), respectively.

*Current Romantic Relationship Measures.* The following measures were only administered to young adults who were currently involved in a romantic relationship lasting three months or longer. This also included married young adults. In addition, romantic partners responded to these measures if young adults gave consent for them to be interviewed. To assess satisfaction in the current romantic relationship, young adults and their partners completed the four-item Romantic Satisfaction Questionnaire (Cantor, Acker, & Cook-Flannagan, 1992). At the 15-year follow-up, Cronbach’s alpha for this measure was .85 for young adult report and .83 for romantic partner report (e.g., “How much satisfaction do you experience in your romantic life?”). Young adults and romantic partners also responded to the Relationship Assessment Scale (Hendrick, Dicke, & Hendrick, 1998), a seven-item measure that also assessed satisfaction in the current romantic relationship. Alpha for this measure was .86 at the 15-year follow-up for young adult report and .84 for romantic partner report (e.g., “How well does your partner meet your needs?”).

Problems or negative interactions in the current romantic relationship were measured using the nine-item Relationship Dynamics Scale (Stanley, Markman, & Whitton, 2002) and the 11-item Relationship Problems Scale (Johnson & Booth, 1998). At the 15-year follow-up, Cronbach's alpha for the Relationship Dynamics Scale was .82 for young adult report and .84 for romantic partner report (e.g., "My partner insults or swears at me"). Alpha for the Relationship Problems Scale was .78 for young adult report, and .75 for romantic partner report (e.g., "Have you had a problem in your relationship because one of you gets angry easily?").

Lastly, young adults and their romantic partners completed the 10-item Confidence Scale (Stanley, Hoyer, & Trathen, 1994) to assess the individual's level of confidence that the relationship will last into the future. At the 15-year follow-up, alpha for this measure was .97 for young adult report and .95 for romantic partner report (e.g., "I believe we can handle whatever conflicts will arise in the future").

#### Plan for Data Analysis

##### *Preliminary Analyses*

The four moments (mean, variance, skewness, and kurtosis) will be computed in SPSS 16.0 (SPSS Inc., 1989-2007) for each of the scales, and any outliers will be identified for the purpose of potential elimination. To determine whether an outlier is influential, the diagnostic indices of leverage (Mahalanobis' distance), distance, and influence (DFFITS and Cook's Distance) will be used. Specifically, a Mahalanobis' distance of 15.5 (Stevens, 1984), a Cook's Distance of 1.0 (Cook, 1977), and an absolute value of 1.0 for distance (Neter et al., 1989) will be used as cutoffs. Should an outlier be identified as influential using these indices, the effect needs to be further examined to determine if removal of that case would change the conclusion of the findings (Cook & Weisberg, 1982). Zero-order correlations among all variables will be computed, and the correlations of several baseline demographic variables, including young adult



age, gender, gross family income, and children's internalizing and externalizing problems, with the mediator and outcome variables will be assessed to determine whether they should be included as covariates.

Analyses of participant attrition will be conducted using GLM (general linear model) in SPSS 16.0 (SPSS Inc., 1989-2007) to determine whether young adults who remained in the study at the 15-year follow-up ( $n = 194$ ) differ from those who attrited between the pretest and 15-year follow-up assessments ( $n = 46$ ) on demographic and mental health variables. I will assess whether there are main effects of attrition on various baseline variables, including gross family income, children's coping efficacy, children's peer competence, and children's internalizing and externalizing problems. If attrition is related to any of these variables, they will be added to the models as covariates. Missing data will be handled using full information maximum likelihood (FIML) estimation in Mplus Version 5.0 (Muthen & Muthen, 1998-2007). FIML yields parameter estimates that are unbiased in regard to any potential covariates of missingness that are present in the model, and even if missingness is related to variables that were not incorporated in the model, FIML yields estimates that are less biased than other methods, such as listwise deletion or mean substitution (Collins, Schafer, & Kam, 2001; Schafer & Graham, 2002). Thus, it will be used in the current study to include all available data.

#### *Development of Composite Measures*

For the measures of parenting, I intend to create composite variables of the measures assessing similar constructs or information from different reporters. Specifically, the intercorrelations among the measures of maternal warmth (i.e., CRPBI Acceptance and Rejection subscales) will be examined, including both mother- and child-report versions, to determine whether those measures cluster together empirically. If the correlations reach .30, meeting the criterion for a medium effect (Cohen, 1992), composite scores will be constructed based on the

means of the standardized z scores from the contributing measures. It is expected that these measures will be sufficiently correlated, since a parenting composite variable was created using the same measures and data in a previous study (Zhou et al., 2008). For the measure of maternal discipline (i.e., CRPBI Consistency of Discipline subscale; Oregon Discipline and Monitoring Scales), I propose to create a ratio of appropriate-to-inappropriate discipline using the items from the Oregon Discipline and Monitoring Scales by dividing the appropriate discipline scores by the sum of the appropriate and inappropriate discipline scores, which has been done in previous studies using the same data (Tein et al., 2004; Zhou et al., 2008). Next I intend to create a composite variable for the measures of maternal discipline. Again, this procedure has been conducted in previous studies (Dawson-McClure et al., 2004; Tein et al., 2004; Wolchik et al., 2000; Zhou et al., 2008), and thus it is expected to be successfully replicated it in the current investigation.

The correlation between mother- and child-reports of the Children's Perception of Interparental Conflict Scale will also be assessed in order to create a composite of these scores with the mother-reported O'Leary-Porter Overly Hostility Scale to assess interparental conflict, assuming the correlations meet the criteria for a medium effect. The same procedure will be followed for the mother- and child-report versions of the peer competence measure. Lastly, this procedure will be conducted for the measures of current romantic relationship outcomes. In particular, the intercorrelations among the young adult and romantic partner reports of the measures of relationship satisfaction (i.e., Romantic Satisfaction Questionnaire and Relationship Assessment Scale) will be assessed to determine whether a composite variable should be created. Next this procedure will be repeated with the young adult and romantic partner reports of the measures of relationship problems or negative interactions (i.e., Relationship Dynamics Scale and

Relationship Problems Scale). Last, the correlation between the young adult and romantic partner reports on the Confidence Scale will be assessed in order to create a composite variable.

### *Summary of Analyses*

The present study proposes to test the effects of interparental conflict and parenting on young adults' romantic outcomes, through the influence of coping efficacy and peer competence in adolescence. Interparental conflict and parenting will be assessed at pretest, coping efficacy and peer competence will be assessed at the six-year follow-up, and all romantic outcome variables will be assessed at the 15-year follow-up. Baseline measures of the mediator variables will be controlled. Since it was not developmentally appropriate to measure romantic relationships during childhood, there were no measures of the romantic constructs at the first wave of data collection, and thus baseline levels of these variables cannot be controlled.

*Effects of the preventive intervention on proposed pathways.* All analyses will be conducted using structural equation modeling in Mplus Version 5.0 (Muthen & Muthen, 1998-2007). To begin, all participants will be entered into the model and a stacked analysis will be conducted to assess whether any of the path coefficients differ significantly for the two active intervention conditions (mother only condition  $N = 64$ , and mother plus child condition,  $N = 70$ ). First, the complete mediational model (See Figure 1) will be fit to the two separate groups. Next, I will attempt to fit a model that constrains the paths to invariance across groups. If the path coefficients are not significantly different across the two intervention conditions, the invariance constraint should have no detrimental effect on the fit of the model. Assuming the model that includes the invariance constraint yields satisfactory fit, the two groups will be combined and compared with the literature control condition ( $N = 60$ ). This assumption is justified, given previous research using the same data showing that the mother only and mother plus child conditions did not produce significantly different effects on a wide range of outcomes (Wolchik

et al., 2007). If the invariance constraint produces a significant lack of fit, the two program conditions will be considered separately, but this will severely limit the power to detect effects in the mediational analyses.

This procedure will be repeated to test for differences in the path coefficients as a result of assignment to either a program (mother only and mother plus child conditions combined; see above) or literature control condition. Specifically, a stacked analysis will be employed, where Figure 1 is fit separately to the combined program and control groups. In this analysis, the paths will be permitted to differ across groups. Next, the invariance constraint will be applied, as described above, and the fit of this model will be assessed. If the model that includes the invariance constraint produces satisfactory fit, the program and control groups will be combined for the subsequent mediational analyses. In addition, it can be concluded that interaction effects of the program with the predictors or mediators are not significantly influencing the overall fit of the model. If specific paths differ significantly between the program and control conditions and this is contributing to poor model fit, the next step is to employ Aiken and West's (1991) multiple regression procedure to test interaction effects (see Two-Part Mediational Model section). These interactions terms would be used in the mediational analyses, after the combined program and control groups are pooled, and will indicate moderation of these specific paths by program condition. To control for any main effects of the program on mediator and outcome variables, the categorical program condition variable will be included in the models as a predictor for the remaining analyses. If the invariance constraint produces an overall lack of fit that is not restricted to particular paths in the model, the program and control groups will not be pooled for the remainder of the analyses. Rather, the path coefficients will be assessed for the two groups separately.

*Two-part mediational model.* The mediational analyses will also be conducted using structural equation modeling in Mplus Version 5.0 (Muthen & Muthen, 1998-2007), where the residuals of the mediator variables will be permitted to inter-correlate and the residuals of the outcome variables will be permitted to inter-correlate. For the following analyses, the program and control groups will either be pooled or analyzed separately depending on the results of the previous stacked analyses. For all participants in the sample, I will test the fit of a model where romantic relationship involvement, the number of relationship beginnings and breakups, avoidant romantic attachment, and anxious romantic attachment are the only outcome variables (see Figure 2), since these measures were administered to the full sample, regardless of whether they were currently involved in a romantic relationship at the 15-year follow-up. The overall fit of the model will be tested using the  $\chi^2$  (chi square) test of exact fit, where retention of the null hypothesis indicates satisfactory fit ( $\alpha = .05$ ); the comparative fit index (CFI), with larger values (closer to 1.0) indicating satisfactory fit; the standardized root mean square residual (SRMSR), with values below .05 indicating satisfactory fit; and the root mean square error of approximation (RMSEA), where values below .08 indicate satisfactory fit. If, taking into consideration these four fit indices, the model fits the data, the path coefficients will be examined for significance. If the model is a poor fit to the data, the local fit indices will be examined, including the residuals, the modification indices, and the expected parameter change statistics to identify the specific pathways that are contributing to unsatisfactory fit. If specific pathways are identified to be problematic, I will consider freeing the corresponding parameters in order to enhance model fit.

For only the participants that were romantically involved at the 15-year follow-up, the fit of the complete model (Figure 1, excluding romantic involvement, because all participants in this particular analysis were romantically involved) will be tested. Using the same fit indices and cutoffs, global and local model fit will be assessed and parameters will be freed if necessary.

Following the attainment of satisfactory fit for the two models (Models 1 and 2), I will examine whether the mediational pathways are significant. Baron and Kenny (1986) propose that a mediational analysis consists of three regression equations. First, the relation between independent and dependent variable must be established (path *c*). Then, the relation between the independent variable and the mediator must be demonstrated (path *a*). Next, the relation between the mediator and the dependent variable must be significant when controlling for the independent variable (path *b*). More recently, several researchers have suggested that the first condition, which establishes path *c*, is unnecessary for the establishment of mediation (MacKinnon, Krull, & Lockwood, 2000). The present study will focus on the revised conceptualization of mediation, which focuses on establishing paths *a* and *b*. In the current study, there are several *a* paths. Specifically, I will examine the path from interparental conflict to peer competence, the path from interparental conflict to coping efficacy, the path from maternal warmth to peer competence, the path from maternal warmth to coping efficacy, the path from maternal discipline to peer competence, and the path from maternal discipline to coping efficacy. In these analyses of the *a* paths, baseline levels of coping efficacy and peer competence will be controlled where appropriate. Similarly, several *b* paths will be tested. For the full sample, I will test the path from peer competence to involvement in a romantic relationship, the path from peer competence to the number of relationship beginnings and breakups, the path from peer competence to avoidant romantic attachment, and the path from peer competence to anxious romantic attachment. The same *b* paths leading from coping efficacy to these romantic outcomes will also be tested.

If the stacked analyses indicated that program condition should be added to specific pathways as a moderator, Aiken & West's (1991) procedure will be employed. Specifically, for the relevant paths, the predictor (either a pretest or six-year follow-up variable, depending on the path) variable, program condition variable, and the interaction of the predictor and the program

condition variables will be simultaneously estimated in one equation. The predictor variables will be centered prior to analysis to reduce collinearity and provide a more interpretable illustration of effects. A significant interaction coefficient will indicate moderation, meaning that the effect of the predictor on the outcome depends on the program condition to which the participant was assigned. This investigation will utilize a regression framework to study mediation, but all of the aforementioned paths will be tested within the same structural equation path model (see Figure 2). For the participants who were currently romantically involved, I will also test *b* paths leading from peer competence to romantic relationship satisfaction, romantic relationship problems, and confidence in the romantic relationship. In addition, I will also test *b* paths leading from coping efficacy to romantic relationship satisfaction, romantic relationship problems, and confidence in the romantic relationship. Again, these relations will be tested simultaneously, as shown in Figure 1, and interaction terms will be created where indicated by the previous stacked analyses.

If the regression coefficients for paths *a* and *b* are both significant at the  $p < .05$  level, they will be multiplied to estimate the mediated effect (MacKinnon & Dwyer, 1993). To test the statistical significance of the mediated effect, the method outlined by MacKinnon, Lockwood, & Williams (2004) will be employed. First, the standard error of this effect will be calculated, where  $SE_{ab} = (a^2SE_b^2 + b^2SE_a^2)^{1/2}$  (MacKinnon & Dwyer, 1993; Sobel, 1982). Then, the product of the *a* and *b* paths will be divided by this standard error. Research has indicated that even if the distributions of the *a* and *b* paths are normal, the distribution of the product of the *a* and *b* paths is often asymmetric and skewed. Thus, the significance of the mediated effect will be examined by generating asymmetric confidence limits, which involves forming the distribution of the product of two standard normal variables using upper and lower critical values (MacKinnon, Lockwood, & Williams, 2004; Meeker, Cornwell, & Aroian, 1981). This procedure yields a better estimate of the mediated effect than the conventional delta method, which checks the distribution against the

normal distribution. If zero is not contained within the 95% confidence interval, it can be concluded that the mediated effect is significant.

*Moderated mediation.* This investigation will also assess whether the *a* or *b* paths in the models are moderated by child gender. When a moderated effect is present, the influence of the independent variable on the dependent variable depends on the level of the moderator. Specifically, I will assess whether the effects of interparental conflict and parenting on coping efficacy and peer competence are different for males vs. females in the current sample. In addition, I will assess whether the effects of coping efficacy and peer competence on all of the romantic outcomes differ as a function of participant gender. In the stacked analyses to determine whether there exist differential effects of the program and control conditions on path coefficients, gender will not be included as a moderator, due to low power to detect significant interaction effects. Instead, gender will be included in analyses as a covariate. If the stacked analysis indicates that the combined program and literature control conditions should be pooled, the conditions will be combined as described above and the gender moderation hypothesis will be tested using additional stacked models. This will enable an examination of whether both the overall model differs by gender and whether individual paths differ as a function of gender. Mplus Version 5.0 (Muthen & Muthen, 1998-2007) will be used again to analyze the structural equation models. Following the procedures outlined above and using all participants, Figure 2 will be fit to males and females, allowing the path coefficients to differ across genders. Next, a model that constrains the paths to invariance across genders will be tested. If the path coefficients are not significantly different for males and females, the analysis should reveal that the invariance constraint does not harm the fit of the model, and it can be concluded that males and females do not differ in the overall proposed model. If the invariance constraint does yield a poor-fitting model, it can then be determined which specific paths differ as a function of gender, which would



indicate moderation. If males and females do not differ significantly, the main effects of gender will be controlled by adding gender as a covariate, as noted in the Preliminary Analyses section, and the two genders will be pooled to test the mediational hypotheses. The gender moderation hypothesis will be similarly tested with only the participants who were romantically involved at the 15-year follow-up, using Figure 1.

## Results

### *Preliminary Analyses*

The four moments for all variables are presented in Table 3. According to West, Finch, & Curran (1995), a skewness of less than 2.00 and a kurtosis of less than 7.00 are acceptable. The skewness and kurtosis of the measured variables did not exceed these cutoffs, with the exception of those corresponding to the History of Romantic Relationships Scale. The skewness of this measure was 3.94, and the kurtosis was 20.98. This implies that this measure provides a restricted range of data, but these findings are consistent with the data provided by the scale developers. Kirkpatrick & Hazan (1994) noted that the distributions of these variables are naturally very skewed due to the low base rates of relationship beginnings and breakups within the past three years. The outlier analysis revealed that no cases in the sample meet criteria for influential data points, and thus all cases were retained for subsequent analyses.

The results of the correlational analyses to identify covariates can be found in Table 2. Children's gender was significantly correlated with children's peer competence at the six-year follow-up ( $r = -.15, p < .05$ ), such that females were more likely to exhibit higher levels of popularity with peers than were males. Similarly, females were more likely than males to be romantically involved at the 15-year follow-up ( $r = .17, p < .04$ ). As evidenced by the significant correlation between gender and participants' scores on the History of Romantic Relationships Scale at the 15-year follow-up, males endorsed experiencing more relationship beginnings and

breakups in the last three years than did females ( $r = .22, p < .01$ ). Thus, gender was added as a covariate to all pathways including these dependent variables.

Children's externalizing problems at baseline were significantly negatively correlated with their peer competence ( $r = -.14, p < .05$ ) and coping efficacy ( $r = -.19, p < .01$ ) at the six-year follow-up, and significantly positively correlated with their avoidant romantic attachment at the 15-year follow-up ( $r = .15, p < .05$ ). Thus, children's baseline externalizing problems were added as a covariate to pathways including these dependent variables. Children's internalizing problems at baseline were significantly correlated with their peer competence ( $r = -.20, p < .01$ ) and coping efficacy ( $r = -.21, p < .01$ ) at the six-year follow-up in a similar pattern, such that higher levels of internalizing problems were associated with lower levels of peer competence and coping efficacy. In addition, children's baseline internalizing problems were significantly positively correlated with their anxious ( $r = .20, p < .01$ ) and avoidant ( $r = .21, p < .01$ ) romantic attachment at the 15-year follow-up. Thus, children's baseline internalizing problems were added as a covariate to pathways including these dependent variables. The intercorrelations among variables used in analyses can be found in Table 4a, 4b, and 4c.

The results of the attrition analyses using GLM (general linear model) revealed that participant attrition between pretest and the 15-year follow-up was significantly related to children's internalizing problems at baseline, such that participants who attrited had lower levels of baseline internalizing problems (see Table 5). Since children's baseline internalizing problems were already determined to be related to the six-year follow-up measures of peer competence and coping efficacy and the 15-year follow-up measures of anxious and avoidant romantic attachment, and thus were intended to be included in analyses involving these measures as dependent variables, it was important to determine whether children's baseline internalizing problems should now be included in all analyses due to its association with participant attrition.

To answer this question, another analysis of participant attrition was conducted, this time including the other hypothesized covariates (children's baseline externalizing problems and gender) to see whether attrition was still related to children's baseline internalizing problems, even when controlling for these other variables. This analysis revealed that the relation between children's internalizing problems at baseline and participant attrition remained significant, and thus children's baseline internalizing problems were included as a covariate in all remaining analyses.

Given the high correlations between the mother- and child-report versions of the peer competence scale, composite variables were created to reflect these constructs both at pretest and at the six-year follow-up. In addition, a composite variable was created from the two mother-report measures and one child-report measure of interparental conflict. At the 15-year follow-up, the young adult and romantic partner versions of the two romantic satisfaction measures were also sufficiently correlated; thus a composite variable was created to reflect romantic satisfaction. Similarly, a composite variable was created by combining young adult and romantic partner reports on two measures to reflect problems in the romantic relationship. Lastly, young adult and romantic partner reports were combined to form one variable reflecting their level of confidence in the romantic relationship.

As shown in Table 4a, the correlations among the child- and mother-report measures of maternal warmth ( $r = .25, p < .001$ ) were not sufficient to warrant the creation of a composite variable. A two-factor confirmatory factor analysis (CFA) was then conducted, where the mother-report items were loaded onto one factor and the child-report items were loaded onto the other (see Figure 3). The correlation between the two factors did not reach the cutoff for a medium-sized effect ( $r = .26, p < .001$ ). Next, a one-factor model was tested, such that all items were constrained to load onto one maternal warmth factor. The fit of this model was poor ( $\chi^2 =$

4576.75,  $p < .0001$ ; CFI = .34; SRMSR = .10; RMSEA = .08); thus it was determined that the child- and mother-reports of maternal warmth could not be composited.

A second-order CFA was then conducted at the item level with the maternal discipline measures, such that the child-reported consistent discipline items were loaded onto one factor, the mother-reported consistent discipline items were loaded onto a second factor, the mother-reported discipline follow-through items were loaded onto a third factor, the mother-reported appropriate discipline items were loaded onto a fourth factor, and the mother-reported inappropriate discipline items were loaded onto a fifth factor (see Figure 4). These five factors were loaded onto a sixth higher-order factor representing maternal discipline. Unfortunately, the analysis failed to converge, and thus it was concluded that a singular maternal discipline factor could not account for the five individual measures of maternal discipline. The correlations among factors were as follows: child-reported consistent discipline with mother-reported consistent discipline ( $r = .18$ ), child-reported consistent discipline with mother-reported discipline follow-through ( $r = .14$ ), child-reported consistent discipline with mother-reported appropriate discipline ( $r = -.15$ ), child-reported consistent discipline with mother-reported inappropriate discipline ( $r = -.18$ ), mother-reported consistent discipline with mother-reported discipline follow-through ( $r = .78$ ), mother-reported consistent discipline with mother-reported appropriate discipline ( $r = -.25$ ), mother-reported consistent discipline with mother-reported inappropriate discipline ( $r = -.45$ ), mother-reported discipline follow-through with mother-reported appropriate discipline ( $r = -.28$ ), mother-reported discipline follow-through with mother-reported inappropriate discipline ( $r = -.54$ ), and mother-reported appropriate discipline with mother-reported inappropriate discipline ( $r = .33$ ). Taken together, the results from the intercorrelations and CFAs involving the measures of parenting revealed that all scales should be analyzed separately. Similar to previous studies using the same data, a variable for the ratio of appropriate to inappropriate discipline was created. An

examination of previous studies measuring parenting revealed that both parent- and child-reports of parenting behaviors are important and have implications for the development of children's interpersonal and coping skills (Gaspar et al., 2008; Scharf & Mayseless, 2001; Smith et al., 2006; Zhou et al., 2008), therefore supporting the decision to enter all mother- and child-reported maternal warmth and discipline measures separately into the models.

#### *Program Effects Analyses*

*Test of differences between the program conditions.* As described earlier, a stacked analysis was conducted using Figure 1 to determine whether there were significant differences in the path coefficients among the mother only and mother plus child program conditions. Unfortunately, since this analysis included only 164 participants (81 in the mother only condition; 83 in the mother plus child condition), and data was missing for those participants that were not romantically involved at the 15-year follow-up, there were insufficient participants to estimate a model with so many paths. Thus, Figure 2 was used initially for these stacked analyses, given its reduced number of paths. The fit of the model allowing the paths to vary was satisfactory ( $\chi^2(88) = 98.35, p = .21$ ; CFI = .94; SRMSR = .05; RMSEA = .04), and the fit of the model constraining the paths to invariance was also satisfactory ( $\chi^2(124) = 141.12, p = .14$ ; CFI = .90; SRMSR = .07; RMSEA = .04).

In order to provide additional evidence that both models fit equally well, a  $\chi^2$  model comparison was conducted, given the fact that the two models were nested. Specifically, the difference in  $\chi^2$  values and degrees of freedom between the two models was calculated ( $\chi^2_{\text{difference}} = 42.77, df_{\text{difference}} = 36$ ) and compared to a table of critical  $\chi^2$  values, which revealed that the null hypothesis could not be rejected, and it was concluded that the fit of the model constraining the paths was not considerably worse than the model allowing the paths to vary. Thus, there was no

evidence for significant differences in the path coefficients between the mother and mother plus child program conditions in Figure 2.

To ensure that there existed no differences between the two program conditions in the paths that were not tested within Figure 2, another stacked model was tested that included as outcomes only those three variables that were not included in Figure 2 (romantic relationship satisfaction, romantic relationship problems, and confidence in the romantic relationship). The fit of the model allowing the paths to vary was satisfactory ( $\chi^2(74) = 72.19, p = .54; CFI = 1.00; SRMSR = .07; RMSEA = .00$ ), and the fit of the model constraining the paths to invariance was also satisfactory ( $\chi^2(104) = 110.84, p = .31; CFI = .97; SRMSR = .07; RMSEA = .03$ ).

In order to provide additional evidence that both models fit equally well, a  $\chi^2$  model comparison was conducted, given the fact that the two models were nested. Specifically, the difference in  $\chi^2$  values and degrees of freedom between the two models was calculated ( $\chi^2_{\text{difference}} = 38.65, df_{\text{difference}} = 30$ ) and compared to a table of critical  $\chi^2$  values, which revealed that the null hypothesis could not be rejected, and it was concluded that the fit of the model constraining the paths was not considerably worse than the model allowing the paths to vary. Thus, there was no evidence for significant differences in the path coefficients between the mother and mother plus child program conditions in the model with romantic relationship satisfaction, romantic relationship problems, and confidence in the romantic relationship as outcome variables. As a result, it was concluded that the path models fit adequately in both groups, and the two program conditions were combined for the remaining analyses.

*Test of differences between the combined program condition and the literature control.*

Next, the program conditions were aggregated and compared with the literature control group in another stacked model. Again, Figure 1 could not be employed, given that the number of paths exceeded the number of participants in the literature control group. Thus, Figure 2 was tested, and

the analysis revealed that the fit of the model allowing the paths to vary was adequate ( $\chi^2(88) = 124.91, p < .01$ ; CFI = .84; SRMSR = .05; RMSEA = .06). The fit of the model did not change considerably when the paths were constrained to be the equivalent across groups ( $\chi^2(124) = 156.82, p < .05$ ; CFI = .86; SRMSR = .06; RMSEA = .05). Despite the fact that the fit of both models was not optimal, improving model fit would require freeing paths, which may inhibit the ability of the model to be estimated, given the sample size in the control group ( $N = 76$ ).

In order to provide additional evidence that both models fit equally well, a  $\chi^2$  model comparison was conducted, given the fact that the two models were nested. Specifically, the difference in  $\chi^2$  values and degrees of freedom between the two models was calculated ( $\chi^2_{\text{difference}} = 31.91, df_{\text{difference}} = 36$ ) and compared to a table of critical  $\chi^2$  values, which revealed that the null hypothesis could not be rejected, and it was concluded that the fit of the model constraining the paths was not considerably worse than the model allowing the paths to vary. Thus, there was no evidence for significant differences in the path coefficients between the combined program and literature control conditions in Figure 2.

To again ensure that there existed no significant differences between the combined program and control conditions in the paths that were not tested within Figure 2, another stacked model was tested that included as outcomes only those three variables that were not included in Figure 2 (romantic relationship satisfaction, romantic relationship problems, and confidence in the romantic relationship). The fit of the model allowing the paths to vary was also satisfactory ( $\chi^2(70) = 81.59, p = .16$ ; CFI = .97; SRMSR = .04; RMSEA = .04), and the fit of the model constraining the paths to invariance was also satisfactory ( $\chi^2(101) = 122.87, p = .07$ ; CFI = .94; SRMSR = .06; RMSEA = .04).

In order to provide additional evidence that both models fit equally well, a  $\chi^2$  model comparison was conducted, given the fact that the two models were nested. Specifically, the

difference in  $\chi^2$  values and degrees of freedom between the two models was calculated ( $\chi^2_{\text{difference}} = 41.28$ ,  $df_{\text{difference}} = 31$ ) and compared to a table of critical  $\chi^2$  values, which revealed that the null hypothesis could not be rejected, and it was concluded that the fit of the model constraining the paths was not considerably worse than the model allowing the paths to vary. Thus, there was no evidence for significant differences in the path coefficients between the combined program and literature control conditions in the model with romantic relationship satisfaction, romantic relationship problems, and confidence in the romantic relationship as outcome variables. Thus, it was concluded that the path models fit adequately in both groups, and the program and control conditions were combined for the mediational analyses. In other words, the stacked analyses revealed that there were no significant program by predictor interaction effects on the mediators and there were no significant program by mediator interaction effects on the outcomes.

#### *Mediational Analyses*

*Moderated mediation.* Since the previous stacked analyses revealed that the three program conditions could be pooled, it was determined that there was sufficient power to test the gender moderation hypothesis. In the remaining analyses, the categorical program condition variable was added as a predictor to all paths in order to control for main effects of the program. Next, additional stacked analyses were employed to determine whether the overall model or individual paths differed as a function of gender in the two-part mediational model, which includes testing both Figure 1 and Figure 2.

*All participants.* First, the fit of Figure 2 was assessed, and all participants were included in this analysis, regardless of whether they were romantically involved at the 15-year follow-up. The stacked models used to test the gender moderation hypothesis are shown in Figures 5 and 6. The fit of the model allowing paths to vary across males and females was satisfactory ( $\chi^2(82) = 104.85$ ,  $p = .05$ ; CFI = .90; SRMSR = .05; RMSEA = .05), and the fit of the model constraining



paths to equivalence across the gender groups was not considerably different ( $\chi^2(121) = 149.82$ ,  $p = .04$ ; CFI = .87; SRMSR = .06; RMSEA = .05). Given the non-optimal fit of these models, the modification indices were examined and it was determined that a path should be added in both groups leading from children's coping efficacy at pre-test to the number of relationship beginnings and breakups at the 15-year follow-up. Thus, this path was added, and in the model allowing paths to vary across genders,  $\chi^2(80) = 97.77$ ,  $p = .09$ ; CFI = .92; SRMSR = .04; RMSEA = .04. Again, the fit did not change considerably when the paths were constrained to invariance across genders ( $\chi^2(120) = 143.55$ ,  $p = .07$ ; CFI = .89; SRMSR = .06; RMSEA = .04), suggesting that there is no evidence for gender moderation in Figure 2.

In order to provide additional evidence that both models fit equally well, a  $\chi^2$  model comparison was conducted, given the fact that the two models were nested. Specifically, the difference in  $\chi^2$  values and degrees of freedom between the two models was calculated ( $\chi^2_{\text{difference}} = 45.79$ ,  $df_{\text{difference}} = 40$ ) and compared to a table of critical  $\chi^2$  values, which revealed that the null hypothesis could not be rejected, and it was concluded that the fit of the model constraining the paths was not considerably worse than the model allowing the paths to vary. Thus, there was no evidence for gender moderation in Figure 2, and to increase parsimony of the model, males and females were pooled for the mediational analysis and no paths were permitted to vary among genders.

After the genders were pooled and satisfactory fit was established, paths were added from pre-test interparental conflict to young adults' number of relationship beginnings and breakups at the 15-year follow-up, from child and mother-reported maternal warmth at pre-test to 15-year follow-up anxious romantic attachment, and from child-reported consistent discipline at pre-test to 15-year follow-up anxious romantic attachment to be consistent with Figure 1 (see below, where these paths were added to Figure 1 to improve model fit). The path coefficients were then

examined for significance; standardized path coefficients for Figure 2 can be found in Tables 6 and 7. The significant and marginal paths are depicted diagrammatically in Figure 11. The results revealed that child-reported maternal warmth (high acceptance and low rejection) at pretest was significantly positively related to children's coping efficacy at the six-year follow-up. Child-reported maternal warmth (high acceptance and low rejection) at pretest was also significantly related to anxious romantic attachment at the 15-year follow-up, such that greater maternal warmth was linked with higher levels of anxious attachment, which was contrary to predictions. Conversely, mother-reported maternal warmth at pretest was negatively linked with anxious romantic attachment at the 15-year follow-up, and the effect was also significant. Also contradictory to hypotheses, child-reported maternal consistent discipline at pretest was significantly negatively related to children's coping efficacy at the six-year follow-up. In addition, higher levels of interparental conflict at pretest were marginally related to more relationship beginnings and breakups 15 years later.

Children's six-year coping efficacy was marginally associated with romantic involvement at the 15-year follow-up, such that higher coping efficacy was linked with a greater likelihood of being romantically involved. Furthermore, lower levels of coping efficacy at six years were marginally linked with more avoidant romantic attachment at the 15-year follow-up. In addition, peer competence at the six-year follow-up was significantly negatively related to anxious romantic attachment at the 15-year follow-up. In the model that included all participants, the proportion of variance accounted for in the 15-year follow-up outcome variables are as follows: .05 for romantic involvement ( $p < .10$ ), .08 for romantic relationship beginnings and breakups ( $p < .05$ ), .09 for avoidant romantic attachment ( $p < .05$ ), and .11 for anxious romantic attachment ( $p < .01$ ).

Following the procedures outlined by MacKinnon & Dwyer (1993) and MacKinnon, Lockwood, & Williams (2004), the significance of the mediated effect was calculated when both the *a* and *b* paths were significant or marginally significant. The results of the tests of the mediated effects for significance in Figure 2 can be found in Table 8. For Figure 2, all mediated effects were nonsignificant within the 95% confidence interval. Thus, the 90% confidence intervals, indicating marginal significance, are reported here. First, the mediational path from pretest child-reported maternal warmth to 15-year romantic involvement, mediated through six-year coping efficacy, was examined for significance. In this model, the *a* path (maternal warmth to coping efficacy) was significant, while the *b* path (coping efficacy to romantic involvement) was marginal. The mediated effect, estimated using the conventional delta method (i.e., dividing the product of the *a* and *b* paths by the standard error of the effect), was -1.43. Then, using MacKinnon, Lockwood, & Williams' (2004) newer method, asymmetric confidence limits were computed for the 90% interval, which ranged from -.067 (lower value) to -.002 (upper value). Since zero was not contained in this interval, the mediated effect was determined to be marginal. Next, the mediational path from pretest child-reported maternal warmth to 15-year avoidant romantic attachment, mediated through six-year coping efficacy, was examined for significance. Again, the *a* path (maternal warmth to coping efficacy) was significant, while the *b* path (coping efficacy to avoidant attachment) was marginal. The mediated effect was estimated using the conventional delta method to be -1.49. Asymmetric confidence limits were computed for the 90% interval, which ranged from -.070 (lower value) to -.003 (upper value). Since zero was not contained in this interval, the mediated effect was determined to be marginal. Next, the mediational path from pretest child-reported consistent discipline to 15-year romantic involvement, mediated through six-year coping efficacy, was examined for significance. In this model, the *a* path (consistent discipline to coping efficacy) was significant, while the *b* path

(coping efficacy to romantic involvement) was marginal. The mediated effect was estimated using the conventional delta method to be 1.40. Asymmetric confidence limits were computed for the 90% interval, which ranged from .001 (lower value) to .060 (upper value). Since zero was not contained in this interval, the mediated effect was determined to be marginal. Next, the mediational path from pretest child-reported consistent discipline to 15-year avoidant romantic attachment, mediated through six-year coping efficacy, was examined for significance. In this model, the *a* path (consistent discipline to coping efficacy) was significant, while the *b* path (coping efficacy to avoidant attachment) was marginal. The mediated effect was estimated using the conventional delta method to be 1.46. Asymmetric confidence limits were computed for the 90% interval, which ranged from .002 (lower value) to .062 (upper value). Since zero was not contained in this interval, the mediated effect was determined to be marginal.

*Romantically-involved participants.* Next, only the participants who were romantically involved at the 15-year follow-up ( $N = 139$ ) were selected for the analysis of Figure 1. Since all of these participants were romantically involved at this assessment, the romantic involvement outcome variable was excluded for the following analyses. Unfortunately, given the limited number of participants, the stacked gender models could not be employed to test Figure 1. Thus, Figure 1 was broken down into two simpler models. The stacked models used to test the gender moderation hypothesis are shown in Figures 7, 8, 9, and 10. Stacked models were used initially to test the three romantic relationship variables (romantic relationship satisfaction, romantic relationship problems, and confidence in the romantic relationship) and to see whether the overall model or specific paths were moderated by participant gender (Figures 7 and 8). The fit of the model allowing paths to vary across males and females was satisfactory ( $\chi^2(64) = 64.53, p = .46$ ; CFI = 1.00; SRMSR = .04; RMSEA = .01). The fit of the model constraining paths to invariance across males and females also appeared satisfactory ( $\chi^2(98) = 116.35, p = .10$ ; CFI = .95; SRMSR

= .06; RMSEA = .05), but a model comparison was conducted to ensure that both models fit equally well. Given the  $\chi^2_{\text{difference}}$  of 51.82 and the  $df_{\text{difference}}$  of 34 and in comparing these values to a table of critical  $\chi^2$  values, this analysis revealed that the null hypothesis should be rejected ( $p < .05$ ). Thus, there is evidence for gender moderation in the model including only the participants who were romantically involved at the 15-year follow-up and including only the romantic relationship outcome variables (romantic relationship satisfaction, romantic relationship problems, and confidence in the romantic relationship).

Another stacked model was employed to test the remaining outcome variables measured in Figure 1 (number of relationship beginnings and breakups, avoidant romantic attachment, and anxious romantic attachment; Figures 9 and 10). The fit of the model allowing paths to vary across males and females was poor ( $\chi^2(62) = 85.00, p < .05$ ; CFI = .79; SRMSR = .05; RMSEA = .07), so the modification indices were examined to determine whether paths could be freed to improve model fit. As a result, paths were added from pre-test interparental conflict to the number of relationship beginnings and breakups at the 15-year follow-up, from child and mother-reported maternal warmth at pre-test to 15-year follow-up anxious romantic attachment, and from child-reported consistent discipline at pre-test to 15-year follow-up anxious romantic attachment. The fit of the model allowing paths to vary across males and females improved considerably ( $\chi^2(54) = 57.58, p = .34$ ; CFI = .97; SRMSR = .04; RMSEA = .03), and the fit of the model constraining paths to invariance was not considerably worse in fit ( $\chi^2(93) = 107.67, p = .14$ ; CFI = .87; SRMSR = .06; RMSEA = .05).

Again, to ensure that both models fit equally well, a  $\chi^2$  model comparison was conducted. the difference in  $\chi^2$  values and degrees of freedom between the two models was calculated ( $\chi^2_{\text{difference}} = 50.09, df_{\text{difference}} = 39$ ) and compared to a table of critical  $\chi^2$  values, which revealed that the null hypothesis could not be rejected, and it was concluded that the fit of the model

constraining the paths was not considerably worse than the model allowing the paths to vary. Thus, there was no evidence for gender moderation in the model including only the participants who were romantically involved at the 15-year follow-up and including the number of relationship beginnings and breakups, avoidant romantic attachment, and anxious romantic attachment as outcomes.

Because only specific paths varied between males and females in Figure 1, the genders were pooled, the two simpler models (including the number of relationship beginnings and breakups, avoidant romantic attachment, anxious romantic attachment, romantic relationship satisfaction, romantic relationship problems, and confidence in the romantic relationship) were combined, and interaction terms were added where necessary. Specifically, the modification indices of the stacked models revealed that the relation between children's peer competence at the six-year follow-up and confidence in the romantic relationship at the 15-year follow-up may differ between genders. In addition, the modification indices revealed that males and females may differ in the relation between program condition (combined program vs. literature control) and their confidence in the romantic relationship at the 15-year follow-up. Thus, following Aiken & West's (1991) procedure, the predictor variables were centered where appropriate, and program condition x gender and six-year coping efficacy x gender variables were created. These interaction terms were then estimated in the SEM, in addition to the main effects of program condition, gender, and six-year coping efficacy. The program condition x gender interaction was significant in predicting young adults' confidence in the romantic relationship, while the six-year coping efficacy x gender interaction was nonsignificant. An examination of the means corresponding to the program condition x gender interaction revealed that males in the literature control condition had the highest levels of confidence in their romantic relationships.

The standardized path coefficients for Figure 1 can be found in Tables 9 and 10. The significant and marginal paths are depicted diagrammatically in Figure 12. The findings were similar to those found in Figure 2, with a few exceptions. In Figure 1, higher levels of interparental conflict at pretest were significantly positively related to more relationship beginnings and breakups at the 15-year follow-up; this effect was only marginal in Figure 2. In addition, in Figure 1, the effect of children's coping efficacy at the six-year follow-up on avoidant romantic attachment at the 15-year follow-up was nonsignificant. This path was marginal in Figure 2. Despite the significant negative effect of six-year peer competence on anxious romantic attachment at the 15-year follow-up in Figure 2, this path was nonsignificant in Figure 1. There were only two other unique findings of Figure 1. First, there was a marginal positive effect of children's six-year coping efficacy on romantic satisfaction at the 15-year follow-up. Second, there was a marginal positive effect of children's six-year coping efficacy on confidence in the romantic relationship at 15 years. In the model that included only the participants who were romantically involved, the proportion of variance accounted for in the 15-year follow-up outcome variables are as follows: .14 for romantic relationship beginnings and breakups ( $p < .05$ ), .09 for avoidant romantic attachment ( $p < .10$ ), .10 for anxious romantic attachment ( $p < .05$ ), .03 for romantic relationship satisfaction ( $p = .31$ ), .02 for romantic relationship problems ( $p = .49$ ), and .07 for confidence in the romantic relationship ( $p < .10$ ).

Following the procedures outlined by MacKinnon & Dwyer (1993) and MacKinnon, Lockwood, & Williams (2004), the significance of the mediated effect was calculated when both the  $a$  and  $b$  paths were significant or marginally significant. The results of the tests of the mediated effects for significance in Figure 1 can be found in Table 11. For Figure 1, all mediated effects were nonsignificant within the 95% confidence interval. Thus, the 90% confidence intervals, indicating marginal significance, are reported here. First, the mediational path from

pretest child-reported maternal warmth to 15-year romantic satisfaction, mediated through six-year coping efficacy, was examined for significance. In this model, the *a* path (maternal warmth to coping efficacy) was significant, while the *b* path (coping efficacy to romantic satisfaction) was marginal. The mediated effect, estimated using the conventional delta method (i.e., dividing the product of the *a* and *b* paths by the standard error of the effect), was 1.47. Then, using MacKinnon, Lockwood, & Williams' (2004) newer method, asymmetric confidence limits were computed for the 90% interval, which ranged from .004 (lower value) to .107 (upper value). Since zero was not contained in this interval, the mediated effect was determined to be marginal. Next, the mediational path from pretest child-reported maternal warmth to 15-year confidence in the romantic relationship, mediated through six-year coping efficacy, was examined for significance. Again, the *a* path (maternal warmth to coping efficacy) was significant, while the *b* path (coping efficacy to romantic confidence) was marginal. The mediated effect was estimated using the conventional delta method to be 1.48. Asymmetric confidence limits were computed for the 90% interval, which ranged from .004 (lower value) to .105 (upper value). Since zero was not contained in this interval, the mediated effect was determined to be marginal. Next, the mediational path from pretest child-reported consistent discipline to 15-year confidence in the romantic relationship, mediated through six-year coping efficacy, was examined for significance. In this model, the *a* path (consistent discipline to coping efficacy) was significant, while the *b* path (coping efficacy to romantic confidence) was marginal. The mediated effect was estimated using the conventional delta method to be -1.50. Asymmetric confidence limits were computed for the 90% interval, which ranged from -.104 (lower value) to -.004 (upper value). Since zero was not contained in this interval, the mediated effect was determined to be marginal. Next, the mediational path from pretest child-reported consistent discipline to 15-year avoidant romantic satisfaction, mediated through six-year coping efficacy, was examined for significance. In this



model, the *a* path (consistent discipline to coping efficacy) was significant, while the *b* path (coping efficacy to romantic satisfaction) was marginal. The mediated effect was estimated using the conventional delta method to be -1.49. Asymmetric confidence limits were computed for the 90% interval, which ranged from -.105 (lower value) to -.004 (upper value). Since zero was not contained in this interval, the mediated effect was determined to be marginal.

### Discussion

This study investigated the theoretical pathways leading to the development of romantic relationships in young adults from divorced families. A multiple linkage pathway was hypothesized in which family processes in middle childhood lead to successful peer relationships and coping efficacy in adolescence, which in turn lead to romantic relationship outcomes in young adulthood. Specifically, it was predicted that lower levels of interparental conflict and higher levels of positive parenting in middle childhood would be associated with higher levels of coping efficacy and peer competence in adolescence. Furthermore, higher levels of peer competence and coping efficacy in adolescence were expected to lead to more secure romantic attachment, a greater likelihood of being involved in a romantic relationship, more satisfaction in the romantic relationship, fewer romantic relationship problems, and greater confidence in the future of the relationship in young adulthood. Two models, one with all participants and the other with only the participants who were romantically involved in young adulthood, were tested. Partial support was found for the proposed longitudinal hypotheses. Specifically, in both models, greater child-reported maternal warmth was related to children's coping efficacy in adolescence. In addition, in the model with all participants, greater coping efficacy in adolescence was marginally linked with both an increased likelihood of being romantically involved and with decreased levels of avoidant romantic attachment in young adulthood. In the model with participants who were romantically involved in young adulthood, greater coping efficacy in

adolescence was marginally related to increased romantic satisfaction and confidence in the romantic relationship in young adulthood. Marginal mediation effects were found for several of the proposed paths. The implications of these findings as well as other unexpected findings and the failure for other analyses to support the mediation model will be discussed. The strengths and limitations of the study and directions for future research will also be discussed.

*Model with all participants.* The finding that child-reported maternal warmth in middle childhood was significantly related to greater coping efficacy in adolescence is consistent with socialization theory, which proposes that parents actively teach children essential skills for regulating emotion and responding to stressful events (e.g., Maccoby & Martin, 1983; Morris et al., 2007). The finding is also consistent with previous studies that have linked parenting with children's coping efficacy (Smith et al., 2006; Zhou et al., 2008), but this study is the first to establish this link over such a long time lag and from middle childhood to adolescence. Prior studies of the relations between parenting and coping have primarily focused on younger children (Smith et al., 2006; Zhou et al., 2008). In addition, this study is the first to use multiple informants to measure parenting when testing its relation to later coping efficacy. Different relations were found between mother- and child-report of maternal warmth in childhood and anxious romantic attachment in young adulthood. Consistent with hypotheses and previous research (e.g., Black & Schutte, 2006; Mikulincer & Shaver, 2007; Owens et al., 1995), mother-reported maternal warmth in middle childhood was related to decreased anxious romantic attachment in young adulthood. Contrary to expectations and prior research, the present study revealed a link between child-reported maternal warmth in middle childhood and children's increased anxious romantic attachment in young adulthood. The current study differs from prior studies in that most prior studies have used young adults' retrospective reports of parenting to test this link (Hazan & Shaver, 1987; Black & Schutte, 2006), which may have led to biased reports

that were based on current relationship experiences in young adulthood. Because the effects in the current study were found over a 15 year period, it may be that later relationship experiences prevented the development of a secure romantic attachment in adulthood, despite the warm relationships in childhood (Dinero et al., 2008; Roisman et al., 2002; Simpson et al., 2007). In addition, it may be that the current counter-intuitive findings are unique to the divorce population. It is well-documented that children from divorced families are more likely to develop insecure attachment styles than their peers from continuously-married families (Crowell, Treboux, & Brockmeyer, 2009; Sprecher, Cate, & Levin, 1998; Summers et al., 1998). It may also be that the experience of parental divorce changes the relations between the parent-child relationship and the development of later romantic relationships. While the contrary findings across reporter are difficult to reconcile, it is not unusual to obtain findings that differ as a function of informant. Using a sample of preadolescents, Tein, Roosa, & Michaels (1994) showed that the correlations between parent and child reports of parenting behaviors are typically small and sometimes negative due to the fact that children and parents share different perceptions of parenting. Importantly, that study used the same measure as the present investigation, the CRPBI, to measure parenting.

Child-reported consistent discipline in middle childhood was negatively related to coping efficacy during adolescence, which is also contrary to other studies showing that effective parenting is positively linked with children's coping efficacy (Smith et al., 2006; Zhou et al., 2008). One potential explanation may be that parents who discipline their children often, even if this discipline is consistent, have children with other problems that may predict poor coping efficacy. For example, it may be that children with externalizing problems evoke greater amounts of discipline efforts on the part of parents, and that their externalizing problems may be accounting for their lower levels of subsequent coping efficacy (e.g., Zhou et al., 2008). Other

studies have found that high levels of certain types of discipline (e.g., discipline that is harsh or that is given when parents are frustrated or angry) are related to higher levels of children's externalizing problems (e.g., Deater-Deckard, Ivy, & Petrill, 2006; Fletcher et al., 2008; Prinzie et al., 2004). In sum, children with behavior problems may need to be disciplined more frequently by parents and may also have poor coping skills.

The findings that greater coping efficacy in adolescence was marginally related to a greater likelihood of being romantically involved and with decreased avoidant romantic attachment in young adulthood are consistent with research showing that coping skills in childhood are associated with romantic outcomes later in life (e.g., Cui, Fincham, & Pasley, 2008; Rodrigues & Kitzmann, 2007). This suggests that children who develop positive coping skills and feel confident in their ability to cope will be more likely to have stable romantic relationships and feel more secure in these relationships in young adulthood. The finding that children's peer competence in adolescence was significantly related to decreased anxious romantic attachment in young adulthood is consistent with findings from previous studies. Specifically, prior studies have found a relationship between popularity with peers and interpersonal competence and positive romantic outcomes later in life (e.g., Carroll, Badger, & Yang, 2006; Gest et al., 2006).

Although not predicted, interparental conflict witnessed in childhood was marginally positively related to the number of relationship beginnings and breakups in young adulthood. The measure used to assess relationship beginnings and breakups has been associated with attachment security in other studies, so this finding is also consistent with literature showing that interparental conflict witnessed during childhood is related to insecure adult romantic attachment (e.g., Hayashi & Strickland, 1998; Rodrigues & Kitzmann, 2007). One potential explanation for this finding is that repeated exposure to interparental conflict may lead children to be more

emotionally insecure and have more difficulty coping with and regulating negative emotion in romantic relationships (Davies & Cummings, 1994).

The present study also found that children's coping efficacy in adolescence marginally mediated the effects of child-reported maternal warmth in childhood on young adults' romantic involvement and their avoidant romantic attachment. Although prior studies have found that maternal warmth was related to romantic outcomes in young adulthood (e.g., Feldman, Gowen, & Fisher, 1998; Scharf & Maysel, 2001), this is the first study to identify mediating pathways to explain this effect. These findings suggest that, in children from divorced homes, warm and responsive parenting may enhance children's perceived ability to cope with stressors, which in turn increases the likelihood that they will be romantically involved and securely attached in young adulthood. Two other mediational pathways were marginally significant, but in unexpected ways. Child-reported consistent discipline in middle childhood was associated with low adolescent coping efficacy, which was in turn related to a lower likelihood of being romantically involved and more avoidant attachment. As discussed earlier, it may be the case that children's prior externalizing problems evoke a greater amount of discipline and also lead to lower coping efficacy. It may be that pre-existing externalizing problems are accounting for the relationships between discipline, coping efficacy, and poorer romantic outcomes (e.g., Fergusson, Horwood, & Ridder, 2005; Woodward, Fergusson, & Horwood, 2002).

None of the childhood variables were found to be associated with children's peer competence in adolescence. One potential explanation for these null findings involves the impact of parental divorce on child outcomes; studies have shown that parental divorce in childhood is associated with a lower level of interpersonal competence (e.g., Mullett & Stolberg, 2002) later in life. Despite the consistent finding that positive parenting is linked with the development of social competence and popularity with peers, many of these studies have been conducted with all non-

divorced families (e.g., Dekovic & Janssens, 1992; Scharf & Mayseless, 2001). It may be that the effect of parental divorce on children's peer competence overrides the potential effect of positive parenting, such that the impact of positive parenting on peer competence is not found in this divorced sample. In particular, parents who divorce may be modeling maladaptive interpersonal behaviors, such as poor conflict resolution and communication skills and excessive anger or hostility, even if they do maintain effective parenting following the divorce (e.g., Amato, 1996; Glenn & Kramer, 1987).

Several predicted relations between childhood variables, including interparental conflict and the mother-reported measures of discipline, and children's coping efficacy in adolescence were not found. Although these relations were predicted based on findings with other samples (e.g., Smith et al., 2006; Zhou et al., 2008), two possible explanations are proposed for why these relations were not found in the current sample. One explanation is that prior studies have not examined these relations in a sample of children of divorce and it may be that the adverse effect of parental divorce on children's coping (e.g., Krantz et al., 1985; Sandler et al., 1994) override the positive effects of interparental conflict and adaptive parenting. Given the numerous negative life changes that accompany parental divorce, it is not surprising that children exhibit deficits in effective coping and higher levels of adjustment problems (e.g., Amato & Keith, 1991; Amato, 2001), regardless of the quality of parenting they receive. A second explanation for the lack of a relation of interparental conflict and discipline with coping efficacy or peer competence involves the amount of time between assessments. During the transition from childhood to adolescence, many additional stressors and changes may be influencing the development of a child's coping efficacy and popularity with peers (e.g., Spear, 2000). Previous research has not examined the developmental periods during which variables such as interparental conflict and parenting exert the most influence on outcomes such coping efficacy and peer competence in divorced families,

despite the finding that accurately identifying time lags in developmental research is essential to reduce bias and make causal inferences (e.g., Gollob & Reichardt, 1987).

A similar explanation may be relevant for the nonsignificant paths leading from adolescent peer competence and coping efficacy to the romantic outcome variables. In particular, there were no significant paths from children's peer competence in adolescence to their romantic involvement, avoidant romantic attachment, and relationship beginnings and breakups in young adulthood. There were also no significant relations between children's coping efficacy in adolescence and their relationship beginnings and breakups and anxious romantic attachment in young adulthood. The transition from adolescence to young adulthood is characterized by many physiological, social, emotional, and behavioral changes (e.g., Arnett, 2000; 2001), so there may have been a number of other variables influencing romantic outcomes during this time. As was the case for the linkages between middle childhood and adolescent variables, it is difficult to identify the specific time lags during which the adolescent variables exert the strongest impact on romantic relationship outcomes, especially when other developmental changes are taking place.

There may also be other explanations for the failure to find relations between peer competence and the romantic outcome variables. It could be the case that, while interpersonal competence is associated with later romantic outcomes, popularity with peers during adolescence is not as influential, such that individuals who were less engaged in social activities during adolescence may still be socially competent and thus successful in romantic relationships in young adulthood. Using young children, Rudasill & Konold (2008) found shyness and social inhibition ratings to be positively linked with social competence two years later. Furthermore, in their review, Miller & Coll (2007) outlined a number of positive factors that contribute to the successful development of social skills in shy children, including parenting and socioeconomic status, and noted that shy children may have friendships that are more intimate than those of

extroverted children. Other researchers have suggested that shyness may prevent children from dealing with conflict using aggressive behavior (Rydell, Bohlin, & Thorell, 2005).

*Model with only the romantically-involved participants.* Many of the same paths that were found in the full sample were also found in this subsample of romantically-involved individuals. For only the participants who were romantically involved, a significant relation was found between interparental conflict experienced in childhood and a greater number of romantic relationship beginnings and breakups in young adulthood. Although previous studies have found interparental conflict witnessed in childhood to be associated with other romantic outcomes, including fears of abandonment, feelings of jealousy, and poor communication skills (Hayashi & Strickland, 1998; Herzog & Cooney, 2002), this study is the first to predict this particular aspect of romantic attachment. Furthermore, previous studies have used only retrospective measures to assess childhood variables (Hayashi & Strickland, 1998; Herzog & Cooney, 2002). The current finding is consistent with Bandura's (1962) social learning theory and suggests that young adults may model the maladaptive conflict behaviors employed by their divorcing parents, which may then contribute to their own romantic relationship instability (Cui, Fincham, & Pasley, 2008; Mullett & Stolberg, 2002; Webster, Orbuch, & House, 1995). This may also reflect the trend for romantically-involved young adults from divorced families to be involved in serial short-term relationships rather than committed long-term bonds, a finding that is related to insecure romantic attachment and consistent with previous studies (e.g., Doucet & Aseltine, 2003).

An interesting pattern of marginal findings was also revealed for the participants who were romantically involved in young adulthood. Higher levels of adolescent coping efficacy were marginally linked with both greater romantic satisfaction and greater confidence in the romantic relationship in young adulthood. This relation has been found in other studies (e.g., Cui, Fincham, & Pasley, 2008; Rodrigues & Kitzmann, 2007) but has not been specifically tested with divorced



families prior to the current investigation. It may be that children's confidence in their ability to cope with stressors impacts the quality of their romantic relationships, possibly through their prior successes with conflict resolution and regulation of negative affect (Kennedy, Bolger, & ShROUT, 2002). The current study also found that male participants exhibited higher levels of confidence in their romantic relationships than did females. This is consistent with previous findings suggesting that men whose parents divorced in childhood are more likely to feel optimistic about the future of their romantic relationships than females from divorced families (Whitton et al., 2008).

The present study also found that adolescents' coping efficacy marginally mediated the effect of child-reported maternal warmth in childhood on young adult romantic satisfaction. Similarly, adolescents' coping efficacy marginally mediated the effect of child-reported maternal warmth in childhood on young adult confidence in the romantic relationship. The current study is the first to demonstrate this mechanism through which parenting leads to the quality of later romantic relationships, although the paths from parenting to coping efficacy (e.g., Smith et al., 2006) and from coping efficacy to romantic outcomes (e.g., Rodrigues & Kitzmann, 2007) have been established in separate studies. These findings suggest that, in children from divorced homes, positive parenting may enhance children's confidence in their ability to cope with negative events, which then enhances their perceptions of their romantic relationship in young adulthood. As suggested earlier, the latter relation may be the result of employing healthier conflict resolution and emotion regulation strategies during romantic conflict.

Coping efficacy in adolescence also marginally mediated the effects of child-reported consistent discipline on romantic outcomes in young adulthood, but in unexpected ways. Specifically, high levels of consistent discipline in middle childhood were related to poor coping efficacy in adolescence, which was associated with low levels of romantic satisfaction and

confidence in the romantic relationship in young adulthood. As noted earlier, children with behavior problems may be disciplined more, have lower levels of coping efficacy, and have poorer romantic outcomes later in life (e.g., Fergusson, Horwood, & Ridder, 2005). In the subsample of romantically-involved participants, there may exist an unidentified third mental health variable that is accounting for the association between positive discipline and problematic romantic relationships, through the influence of coping efficacy. As discussed for the model that included all participants, many childhood variables were found to be unrelated to adolescent coping efficacy and peer competence. Similar explanations could potentially be applied to the lack of support for predicted relations in this subsample as in the full sample.

#### *Theoretical Implications, Strengths, and Weaknesses*

The present study was designed to test the mechanisms through which early childhood factors such as parenting and interparental conflict affect the development of romantic relations in young adulthood. It was conducted with a sample of children from divorced households, a group that is at increased risk for experiencing the eventual dissolution of their own marriages (Amato & DeBoer, 2001; Webster, Orbuch, & House, 1995). This investigation found that both parenting and interparental conflict in childhood are related to the development of romantic attachment security, the likelihood of being romantically involved, and the quality of romantic relationships in young adulthood. In addition, this study showed that children's coping efficacy and peer competence may be plausible mechanisms through which those family contextual variables exert long-term effects on romantic outcomes. Although the mediational models were only marginally significant, this is the first study to empirically find support for the role of coping efficacy and peer competence in adolescence as mediators of the relation between parenting and conflict in childhood and romantic outcomes in young adulthood. The use of longitudinal data spanning a

period of 15 years establishes temporal precedence of the measured variables and allows greater confidence in making causal inferences.

In addition, this study is the first to simultaneously test coping efficacy and peer competence as mediators of these relations in this high-risk population and to employ multiple informants to measure each relationship variable. Many previous studies are cross-sectional (e.g., Steinberg, Davila, & Fincham, 2006), retrospective (e.g., Hayashi & Strickland, 1998), measure only one informant's perception of the relationship (e.g., Reese-Weber & Bartle-Haring, 1998), or only assess specific components of relationship quality, such as the capacity for intimacy (e.g., Scharf & Mayseless, 2001). The current study addressed all of these limitations, using mothers and children to measure parenting and peer competence variables and young adults and their romantic partners to measure romantic relationship variables. Furthermore, multiple parenting dimensions were measured, including warmth and discipline, and several dimensions of romantic relationship quality were assessed, including satisfaction, problems, and confidence in the relationship. In addition, this study assessed whether the relations among family contextual variables, coping efficacy, peer competence, and romantic outcomes differed as a function of whether participants were currently romantically involved.

Unfortunately, the small sample size precluded the ability to test all hypothesized paths within the same structural equation model, thereby necessitating decomposition of most of the models into simpler forms for analyses. This may have prevented an examination of the unique contributions made by each of the predictor and mediator variables, potentially leading to biased results. The small sample size also resulted in potentially insufficient power to detect such long-term mediational effects. Importantly, the study was correlational, given that the preventive intervention did not appear to impact any of the hypothesized paths. It is also important to note that, of the many paths tested in the two models, only a small percentage of them reached

significance. Because five percent of the tests of mediation would be expected by chance, replication of the current findings is necessary in order to have confidence that they are not due to chance.

#### *Intervention Implications and Future Directions*

This study has several important implications for intervention with children from divorced homes. The present findings suggest that parenting, interparental conflict, coping efficacy, and peer competence may serve as modifiable targets of intervention. Parenting programs that emphasize parental warmth, responsiveness, and effective discipline have been shown to mediate the effects of an intervention to reduce mental health problems of children from divorced homes (Wolchik et al., 2002; 2007). The current study provides some suggestive evidence that one of the pathways by which positive parenting improves children's long-term romantic outcomes may be by helping children feel more confident in their ability to cope with conflict and other stressors. The potential contribution of parenting to improve children's coping efficacy might best be realized in a multi-component intervention in which children learn adaptive coping strategies and parents reinforce children's use of these strategies at home. Indeed, the New Beginnings Program (NBP), the preventive intervention that was assessed in this study, included a child coping skills component in addition to a parenting skills component, but previous analyses showed that neither component produced changes in children's active coping, avoidant coping, or coping, or coping efficacy at posttest (Wolchik et al., 2000). Despite this null finding, more recent analyses revealed that the program did enhance children's active coping and coping efficacy at the six-year follow-up, through its effects on mother-child relationship quality (Velez et al., 2010; Wolchik et al., 2002). One way in which a parenting component may help improve the coping efficacy of children from divorced families may be by facilitating parental warmth and sensitivity, improving parent-child communication, and teaching parents how to discipline

effectively. Specifically, parents may actively teach children how to cope with stressful events through positive communication with their children and responsiveness to their children's needs (Maccoby & Martin, 1983). In addition, parents may model healthy coping strategies, both in the way they cope with the divorce and in the way they communicate and resolve conflict with their ex-partner (Bandura, 1962; Cui, Fincham, & Pasley, 2008).

Other preventive interventions have been shown to impact children's coping skills directly. For example, the Family Bereavement Program (FBP), a program designed to prevent mental health problems in children who experienced the death of a parent, was found to improve children's positive coping, which was comprised of both coping efficacy and adaptive coping strategies, at the posttest assessment (Sandler et al., 2003). Other programs, such as the Improving Social Awareness – Social Problem Solving (ISA-SPS) Program (Bruene-Butler et al., 1997), the Positive Youth Development Program (PYD) (Caplan et al., 1992), the Peer Coping Skills Training Program (Prinz et al., 1994) have also been shown to improve both children's and adolescents' ability to cope with stressful events. It may be the case that a preventive intervention that includes a strong coping skills component impacts children's long-term romantic outcomes through its effects on adaptive coping. Alternatively, a preventive intervention may enhance the development of children's positive coping, which may shield them from developing internalizing and externalizing problems in response to stressful events (Compas, 1987) and enable them to have higher-quality and more successful romantic relationships.

The current study did not find an effect of parenting on later romantic outcomes through the mechanism of children's peer competence. Despite this, it may be plausible for a preventive intervention to impact children's peer competence directly, which may then influence romantic outcomes in young adulthood. In particular, it may be possible to teach children the skills to communicate and negotiate effectively with peers, which translates to the later use of these skills

with romantic partners. If children are able to communicate empathetically and resolve conflict effectively, they will likely have more positive relationships with romantic partners (Carroll, Badger, & Yang, 2006). Although the NBP was not shown to have effects on children's peer competence, other preventive interventions, including some that were also shown to impact children's coping, have also been found to enhance children's social skills. For example, the Peer Coping Skills Training Program was shown to improve children's teacher-rated social skills at both posttest and follow-up assessments (Prinz et al., 1994). In addition, the Positive Youth Development Program (PYD) (Caplan et al. 1992) and Social Relations Program (Lochman et al., 1993) were both found to improve children's social competence and popularity with peers. Again, since social skills are linked with mental health (e.g., Dodge & Somberg, 1987; Luthar & Zigler, 1992), it may be the case that these prevention programs influence children's social competence, which leads to improved mental health and eventually, success in romantic relationships. It may also be the case that some other variable, such as mental health problems, accounts for the effect of these programs on children's six-year competence, such that the program's positive effect on children's mental health leads to enhanced social skills, which then contributes to more positive romantic relationships in young adulthood.

Although the hypothesized models did not appear to differ as a function of gender, other studies have found differences between males and females in regard to the influence of parental divorce and family contextual variables on romantic outcomes (e.g., Mullett & Stolberg, 2002; Story et al., 2004). Given the fact that the present sample was comprised of exclusively divorced families, this study was unable to assess the impact of parental divorce on the mediator and romantic outcome variables. It may be the case that within divorced families, the pathways from parenting and interparental conflict to children's later romantic outcomes, through the influence of children's coping efficacy and peer competence, are the same for both genders. It will be

important for future studies to look at the interactive effect of child gender and parental divorce on children's romantic outcomes, using a larger sample of both divorced and non-divorced families. In the current study, only 194 young adults participated in the 15-year follow-up, and only 139 of them were romantically involved, limiting power to detect moderational effects.

In conclusion, a future preventive intervention might include simultaneous parent training and children's social competence and coping skills components. Parents would learn strategies for disciplining effectively and building positive post-divorce relationships with their children. In addition, parents would learn skills to practice and reinforce children's coping efforts and social skills in the home environment. The inclusion of pretest, posttest, and multiple follow-up assessments might yield information regarding the impact of the program on targeted variables and other important constructs, such as mental health, in an attempt to delineate causal relationships. The findings yielded from efficacy trials of these programs would guide future research, such that the programs could be modified to target the most proximal variables of change, whether they are children's mental adjustment, social competence, or coping skills, which would eventually contribute to romantic relationship outcomes. It will also be essential for future research to identify critical points of intervention for parenting, coping skills, and social competence so that other changes taking place across the developmental trajectory do not serve to counteract the effects of the program.

The current study illustrates how adaptation following parental divorce can be conceptualized within a resilience, rather than risk, framework. In particular, it has been suggested that healthy adaptation following parental divorce includes both reductions in problem outcomes and increases in developmental competencies (e.g., Luthar, 2003). Given the importance of establishing intimate romantic relationships for cognitive, emotional, behavioral, and physical functioning (Baumeister & Leary, 1995), it is important for future studies to

consider the completion of long-term developmental tasks as important outcome variables to examine in prevention research with high-risk populations (Masten & Coatsworth, 1998; Sandler, Wolchik, & Ayers, 2008). Although many programs are designed to mitigate negative outcomes following parental divorce, (e.g., Wolchik et al., 2007), there is a growing interest in the effects of preventive interventions on promoting positive outcomes (Catalano et al., 2002). As noted by Sandler, Wolchik, & Ayers (2008) in the context of parental bereavement, the same risk and protective factors that contribute to negative outcomes can also be enhanced to lead to positive outcomes for children. Catalano et al. (2002; 2004) indicated that specific family-, individual-, and community-level factors can be targeted in “positive youth development” (PYD) programs to assist children in successfully achieving developmental tasks, such as involvement in intimate relationships. Thus, the findings from the present study suggest that, while family-contextual factors such as parenting and interparental conflict can lead to negative peer and romantic partner relationships, in addition to poor coping skills, these factors can also be targeted to lead to resilient outcomes. Similarly, individual-level factors such as coping efficacy and peer competence can be modified through preventive interventions to improve later romantic relationship outcomes. Future preventive interventions would benefit from incorporating these protective factors in their targeted program components, and methodologically rigorous, long-term prospective studies can assist in providing evidence that these factors do in fact lead to developmentally-salient positive outcomes for high-risk youth.



Table 1

*Measures and Reliabilities*

Measure	Cronbach's alpha ( $\alpha$ )		
	Pretest	Six Years	15 Years
Children's Perception of Interparental Conflict Scale (Frequency and Intensity subscales) (M)	.89	--	--
Children's Perception of Interparental Conflict Scale (Frequency and Intensity subscales) (C)	.82	--	--
O'Leary-Porter Overly Hostility Scale (M)	.86	--	--
Children's Report of Parenting Behavior Inventory (Acceptance and Rejection subscales) (M)	.86	--	--
Children's Report of Parenting Behavior Inventory (Acceptance and Rejection subscales) (C)	.86	--	--
Children's Report of Parenting Behavior Inventory (Consistency of Discipline subscale) (M)	.82	--	--
Children's Report of Parenting Behavior Inventory (Consistency of Discipline subscale) (M)	.74	--	--
Oregon Discipline and Monitoring Scales (Appropriate Discipline subscale) (M)	.59	--	--
Oregon Discipline and Monitoring Scales (Inappropriate Discipline subscale) (M)	.75	--	--
Oregon Discipline and Monitoring Scales (Follow-Through subscale) (M)	.78	--	--
Coatsworth Competence Scale (Peer Competence subscale) (M)	.82	.79	--

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Measure	Cronbach's alpha ( $\alpha$ )		
	Pretest	Six Years	15 Years
Coping Efficacy Scale (C)	.74	.82	--
History of Romantic Relationships Scale (C)	--	--	.73
Experiences in Close Relationships Scale (Avoidant Attachment subscale) (C)	--	--	.95
Experiences in Close Relationships Scale (Anxious Attachment subscale) (C)	--	--	.93
Romantic Satisfaction Questionnaire (C)	--	--	.85
Romantic Satisfaction Questionnaire (RP)	--	--	.83
Relationship Assessment Scale (C)	--	--	.86
Relationship Assessment Scale (RP)	--	--	.84
Relationship Dynamics Scale (C)	--	--	.82
Relationship Dynamics Scale (RP)	--	--	.84
Relationship Problems Scale (C)	--	--	.78
Relationship Problems Scale (RP)	--	--	.75

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Measure	Cronbach's alpha ( $\alpha$ )		
	Pretest	Six Years	15 Years
Confidence Scale (C)	--	--	.97
Confidence Scale (RP)	--	--	.95

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*Note.* (M) = Mother Report; (C) = Child Report; (RP) = Romantic Partner Report.

Table 2

*Intercorrelations Among Potential Covariates, Mediators, and Outcomes in a Longitudinal Sample of Children of Divorce*

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Child Age	1.00	.10	.04	.01	-.05	-.02	-.01	-.01	-.09	-.05	-.06	-.09	-.01	.01
2. Child Gender <sup>a</sup>	--	1.00	-.10	.14*	.07	-.04	-.15*	.17*	.22**	.09	.09	-.04	-.03	-.04
3. Gross Family Income	--	1.00	-.12	-.06	.09	.02	-.10	-.02	-.02	-.04	-.05	-.04	.09	-.07
4. T1 Children's Ext. Problems (M/C)	--	1.00	.56**	-.19**	-.14*	.06	-.06	.15*	.14	-.07	.00	-.15		
5. T1 Children's Int. Problems (M/C)			--	1.00	-.21**	-.20**	.00	-.05	.20**	.20**	-.05	-.02	-.12	
6. T2 Children's Coping Efficacy (C)				--	1.00	.38**	-.15*	.03	-.23**	-.16*	.18*	-.11	.21*	
7. T2 Children's Peer Competence (M/C)					--	1.00	-.10	-.13	-.21**	-.26**	.06	-.03	.14	

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Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14
8. T3 Romantic Involvement <sup>b</sup> (C)							--	1.00	.28**	.36**	.23**	.06	-.03	-.17*
9. T3 Romantic Rel. Beginnings and Breakups (C)								--	1.00	.14*	.15*	.06	-.03	-.06
10. T3 Avoidant Romantic Attachment (C)									--	1.00	.52**	-.52**	.33**	-.58**
11. T3 Anxious Romantic Attachment (C)										--	1.00	-.40**	.41**	-.34**
12. T3 Romantic Rel. Satisfaction (C/RP)											--	1.00	-.78**	.79**
13. T3 Romantic Rel. Problems (C/RP)												--	1.00	-.59**
14. T3 Confidence in Romantic													--	1.00

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Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14
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Rel. (C/RP)

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*Note.* (M/C) = Mother + Child Report; (M) = Mother Report; (C) = Child Report; (C/RP) = Child + Romantic Partner Report. T1 = Pretest; T2 = Six-Year Follow-Up; T3 = 15-Year Follow-Up.

<sup>a</sup>1 = Female; 2 = Male. <sup>b</sup>1 = Yes; 2 = No.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 3

*Measures of Covariates, Predictors, Mediators, and Outcomes in a Longitudinal Sample of Children of Divorce*

Variable	N	M	SD	Skewness	Kurtosis
Experimental Condition (1=Mother + Child, 2=Mother, 3=Lit. Control)	240	1.97	.82	.05	-1.49
Child Gender (1=Female, 2=Male)	240	1.51	.50	-.05	-2.01
T1 Children's Externalizing Problems (Mother + Child Report)	240	.00	.79	.39	.58
T1 Children's Internalizing Problems (Mother + Child Report)	240	.00	.76	.32	-.46
T1 Child-Reported Maternal Warmth	240	51.76	5.87	-.72	-.05
T1 Mother-Reported Maternal Warmth	240	53.94	4.19	-.82	.56
T1 Child-Reported Consistent Discipline	240	18.71	3.39	-.59	-.10
T1 Mother-Reported Consistent	240	20.32	3.16	-.95	.63

Variable	N	M	SD	Skewness	Kurtosis
Discipline					
T1 Mother-Reported Ratio of Appropriate to Inappropriate Discipline	240	.49	.05	-.00	-.24
T1 Mother-Reported Discipline Follow-Through	240	3.89	.60	-.68	.11
T1 Interparental Conflict (Mother + Child Report)	227	-.05	.79	1.19	1.73
T1 Child-Reported Coping Efficacy	240	20.35	3.08	-.20	.39
T1 Peer Competence (Mother + Child Report)	240	-.02	.83	-1.21	1.94
T2 Child-Reported Coping Efficacy	206	21.87	3.18	.06	-.46
T2 Peer Competence (Mother + Child Report)	214	.04	.95	-1.33	2.57



Variable	N	M	SD	Skewness	Kurtosis
Child Report)					
T3 Child-Reported Romantic Involvement (1=Yes, 2=No)	194	1.28	.45	.97	-1.07
T3 Child-Reported Romantic Rel. Beginnings and Breakups	194	.66	1.02	3.94	20.98
T3 Child-Reported Avoidant Attach.	194	2.47	1.01	.79	.69
T3 Child-Reported Anxious Attach.	194	3.15	1.08	.21	-.44
T3 Romantic Relationship Satisfaction (Young Adult + Romantic Partner Report)	136	-.01	.86	-1.03	.29
T3 Romantic Relationship Problems (Young Adult + Romantic Partner Report)	136	-.01	.86	.73	.05
T3 Confidence in the Romantic	136	-.03	.91	-1.35	1.15

Relationship (Young Adult + Romantic Partner Report)

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*Note.* T1 = Pretest; T2 = Six-year follow-up; T3 = 15-year follow-up.

Table 4a

*Intercorrelations Among Pretest and Six-Year Follow-Up Variables in a Longitudinal Sample of Children of Divorce*

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Exper. Condition <sup>a</sup>	1.00	-.03	-.08	-.05	.09	.05	.03	.03	-.07	.13*	-.14*	-.04	.10	-.04	.05
2. Child Gender <sup>b</sup>	--	1.00	.14*	.07	-.04	-.02	-.04	-.06	.00	-.04	.05	-.07	-.13*	-.04	-.15*
3. T1 Children's Ext. Problems (M/C)	--	1.00	.56**	-.33**	-.35**	-.28**	-.38**	-.17*	-.31**	.28**	-.15*	-.28**	-.19**	-.14*	
4. T1 Children's Int. Problems (M/C)		--	1.00	-.30**	-.28**	-.26**	-.37**	-.08	-.31**	.28**	-.30**	-.46**	-.21**	-.20**	
5. T1 Maternal Warmth (C)			--	1.00	.26**	.54**	.25**	.19**	.20**	-.09	.33**	.18**	.21**	.09	
6. T1 Maternal Warmth (M)				--	1.00	.06	.45**	.35**	.51**	-.11	.10	.22**	.07	.10	

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Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
7. T1 Consistent Discipline (C)						--	1.00	.18*	.07	.14	-.23**	.08	.08	-.00	-.00
8. T1 Consistent Discipline (M)							--	1.00	.23**	.78**	-.26**	.08	.11	.13	.09
9. T1 Ratio of App. To Inapp. Disc. (M)								--	1.00	.29**	-.10	.14*	.05	.10	.08
10. T1 Follow-Through (M)									--	1.00	-.20**	.13*	.15*	.10	.08
11. T1 Interparental Conflict (M/C)										--	1.00	-.08	-.09	-.12	-.06

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Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
12. T1 Children's Coping Efficacy (C)											--	1.00	.15*	.24**	.15*
13. T1 Children's Peer Competence (M/C)												--	1.00	.14	.41**
14. T2 Children's Coping Efficacy (C)													--	1.00	.37**
15. T2 Children's Peer Competence (M/C)														--	1.00

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Note. (M/C) = Mother + Child Report; (M) = Mother Report; (C) = Child Report. T1 = Pretest; T2 = Six-Year Follow-Up.

<sup>a</sup>1 = Mother + Child; 2 = Mother Only; 3 = Literature Control. <sup>b</sup>1 = Female; 2 = Male.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 4b

*Intercorrelations Among Pretest and 15-Year Follow-Up Variables in a Longitudinal Sample of Children of Divorce*

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. Exper. Condition													--	-.09	-.02	.02	-.03	.01	-.04	-.06
2. Child Gender <sup>b</sup>													--	.17*	.22**	.09	.09	-.04	-.03	-.04
3. T1 Children's Ext. Problems (M/C)													--	.06	-.06	.15*	.14	-.07	.01	-.15
4. T1 Children's Int. Problems (M/C)													--	.00	-.05	.21**	.20**	-.05	-.02	-.12
5. T1 Maternal Warmth (C)													--	-.02	.04	-.08	.01	.08	-.03	.11
6. T1 Maternal Warmth (M)													--	-.01	.08	-.19**	-.21**	.12	-.01	.07

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Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
7. T1 Consistent Discipline (C)													--	.09	.09	.08	.05	-.03	-.01	-.05
8. T1 Consistent Discipline (M)													--	-.01	.05	-.11	-.08	.04	-.02	.09
9. T1 Ratio of App. To Inapp. Disc. (M)													--	.07	.00	-.11	-.12	.08	-.01	.07
10. T1 Follow-Through (M)													--	-.04	.05	-.00	-.03	-.03	.06	.04
11. T1 Interparental Conflict (M/C)													--	-.06	.08	.02	.04	.01	.02	-.05

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Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
12. T1 Children's Coping Efficacy (C)													--	-.09	-.07	-.19**	-.12	.12	-.04	.13
13. T1 Children's Peer Competence (M/C)													--	-.09	-.03	-.16*	-.21**	.04	.05	.14
14. T3 Romantic Involvement <sup>c</sup> (C)													--	1.00	.28**	.36**	.23**	.06	-.03	-.17*
15. T3 Romantic Rel. Beginnings and Breakups (C)													--	1.00	.14*	.15*	.06	-.03	-.06	
16. T3 Avoidant Romantic Attachment (C)														--	1.00	.52*	-.52**	.33**	-.58**	
17. T3 Anxious Romantic Attachment (C)															--	1.00	-.40**	.41**	-.34**	

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Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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18. T3 Romantic Rel. Satisfaction (C/RP)																		--	1.00	-.78**	.79**
19. T3 Romantic Rel. Problems (C/RP)																		--	1.00	-.59**	
20. T3 Confidence in Romantic Rel. (C/RP)																			--	1.00	

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*Note.* (M/C) = Mother + Child Report; (M) = Mother Report; (C) = Child Report; (C/RP) = Child + Romantic Partner Report. T1 = Pretest; T3 = 15-Year Follow-Up.

<sup>a</sup>1 = Mother + Child; 2 = Mother Only; 3 = Literature Control. <sup>b</sup>1 = Female; 2 = Male. <sup>c</sup>1 = Yes; 2 = No.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 4c

*Intercorrelations Among Six-Year Follow-Up and 15-Year Follow-Up Variables in a Longitudinal Sample of Children of Divorce*

Measure	1	2	3	4	5	6	7	8	9
1. T2 Children's Coping Efficacy (C)	1.00	.38**	-.15*	.03	-.23**	-.16	.18*	-.11	.21*
2. T2 Children's Peer Competence (M/C)	--	1.00	-.10	-.13	-.21**	-.26**	.06	-.03	.14
3. T3 Romantic Involvement (C) <sup>a</sup>									--
4. T3 Romantic Rel. Beginnings and Breakups (C)									--
5. T3 Avoidant Romantic Attachment (C)									--
6. T3 Anxious Romantic Attachment (C)									--
7. T3 Romantic Relationship Satisfaction (C/RP)									--
8. T3 Romantic Relationship Problems (C/RP)									--
9. T3 Confidence in Romantic Relationship (C/RP)									--

*Note.* (M/C) = Mother + Child Report; (M) = Mother Report; (C) = Child Report; (C/RP) = Child + Romantic Partner Report. T2 = Six-Year Follow-Up; T3 = 15-Year Follow-Up.

<sup>a</sup>1 = Yes; 2 = No.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 5

*Results of Attrition Analyses*

Predictor	<i>F</i>
T1 Gross Family Income (M)	.06
T1 Children's Externalizing Problems (M/C)	.37
T1 Children's Internalizing Problems (M/C)	5.52*
T1 Children's Peer Competence (M/C)	.36
T1 Children's Coping Efficacy (C)	3.48 <sup>+</sup>

*Note.* 0 = Participant did not participate at the 15-year follow-up ( $N = 46$ ); 1 = Participant did participate at the 15-year follow-up ( $N = 194$ ). (M/C) = Mother + Child Report; (M) = Mother Report; (C) = Child Report.

<sup>+</sup>  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

Table 6

*Standardized Path Coefficients and Standard Errors: Model with All Participants*

Model	Path <i>a</i>	SE	Path <i>b</i>	SE
<b><i>Predictor: Maternal Warmth</i></b>				
T1 Maternal Warmth (C) → T2 Coping Efficacy (C) → T3 Romantic Involvement <sup>a</sup> (C)	.21*	.09	-.14 <sup>+</sup>	.08
T1 Maternal Warmth (M) → T2 Coping Efficacy (C) → T3 Romantic Involvement <sup>a</sup> (C)	-.05	.08	-.14 <sup>+</sup>	.08
T1 Maternal Warmth (C) → T2 Peer Competence (M/C) → T3 Romantic Involvement <sup>a</sup> (C)	.07	.08	-.06	.08
T1 Maternal Warmth (M) → T2 Peer Competence (M/C) → T3 Romantic Involvement <sup>a</sup> (C)	-.03	.08	-.06	.08
T1 Maternal Warmth (C) → T2 Coping Efficacy (C) → T3 Romantic Rel. Beginnings and Breakups (C)	.21*	.09	.08	.08
T1 Maternal Warmth (M) → T2 Coping Efficacy (C) → T3 Romantic Rel. Beginnings and Breakups (C)	-.05	.08	.08	.08
T1 Maternal Warmth (C) → T2 Peer Competence (M/C) → T3 Romantic Rel. Beginnings and Breakups (C)	.07	.08	-.12	.09
T1 Maternal Warmth (M) → T2 Peer Competence (M/C) → T3 Romantic Rel. Beginnings and Breakups (C)	-.03	.08	-.12	.09
T1 Maternal Warmth (C) → T2 Coping Efficacy (C) → T3 Avoidant Romantic Attachment (C)	.21*	.09	-.15 <sup>+</sup>	.08

Model	Path <i>a</i>	SE	Path <i>b</i>	SE
T1 Maternal Warmth (M) → T2 Coping Efficacy (C) → T3 Avoidant Romantic Attachment (C)	-.05	.08	-.15 <sup>+</sup>	.08
T1 Maternal Warmth (C) → T2 Peer Competence (M/C) → T3 Avoidant Romantic Attachment (C)	.07	.08	-.12	.07
T1 Maternal Warmth (M) → T2 Peer Competence (M/C) → T3 Avoidant Romantic Attachment (C)	-.03	.08	-.12	.07
T1 Maternal Warmth (C) → T2 Coping Efficacy (C) → T3 Anxious Romantic Attachment (C)	.21*	.09	-.06	.08
T1 Maternal Warmth (M) → T2 Coping Efficacy (C) → T3 Anxious Romantic Attachment (C)	-.05	.08	-.06	.08
T1 Maternal Warmth (C) → T2 Peer Competence (M/C) → T3 Anxious Romantic Attachment (C)	.07	.08	-.21**	.07
T1 Maternal Warmth (M) → T2 Peer Competence (M/C) → T3 Anxious Romantic Attachment (C)	-.03	.08	-.21**	.07
<b><i>Predictor: Maternal Discipline</i></b>				
T1 Consistent Discipline (C) → T2 Coping Efficacy (C) → T3 Romantic Involvement <sup>a</sup> (C)	-.19*	.08	-.14 <sup>+</sup>	.08
T1 Consistent Discipline (M) → T2 Coping Efficacy (C) → T3 Romantic Involvement <sup>a</sup> (C)	.04	.10	-.14 <sup>+</sup>	.08
T1 Consistent Discipline (C) → T2 Peer Competence (M/C) →	-.07	.08	-.06	.08

Model	Path <i>a</i>	SE	Path <i>b</i>	SE
T3 Romantic Involvement <sup>a</sup> (C)				
T1 Consistent Discipline (M) → T2 Peer Competence (M/C) →	.07	.09	-.06	.08
T3 Romantic Involvement <sup>a</sup> (C)				
T1 Consistent Discipline (C) → T2 Coping Efficacy (C) →	-.19*	.08	.08	.08
T3 Romantic Rel. Beginnings and Breakups (C)				
T1 Consistent Discipline (M) → T2 Coping Efficacy (C) →	.04	.10	.08	.08
T3 Romantic Rel. Beginnings and Breakups (C)				
T1 Consistent Discipline (C) → T2 Peer Competence (M/C) →	-.07	.08	-.12	.09
T3 Romantic Rel. Beginnings and Breakups (C)				
T1 Consistent Discipline (M) → T2 Peer Competence (M/C) →	.07	.09	-.12	.09
T3 Romantic Rel. Beginnings and Breakups (C)				
T1 Consistent Discipline (C) → T2 Coping Efficacy (C) →	-.19*	.08	-.15 <sup>+</sup>	.08
T3 Avoidant Romantic Attachment (C)				
T1 Consistent Discipline (M) → T2 Coping Efficacy (C) →	.04	.10	-.15 <sup>+</sup>	.08
T3 Avoidant Romantic Attachment (C)				
T1 Consistent Discipline (C) → T2 Peer Competence (M/C) →	-.07	.08	-.12	.07
T3 Avoidant Romantic Attachment (C)				
T1 Consistent Discipline (M) → T2 Peer Competence (M/C) →	.07	.09	-.12	.07
T3 Avoidant Romantic Attachment (C)				
T1 Consistent Discipline (C) → T2 Coping Efficacy (C) →	-.19*	.08	-.06	.08

Model	Path <i>a</i>	SE	Path <i>b</i>	SE
T3 Anxious Romantic Attachment (C)				
T1 Consistent Discipline (M) → T2 Coping Efficacy (C) →	.04	.10	-.06	.08
T3 Anxious Romantic Attachment (C)				
T1 Consistent Discipline (C) → T2 Peer Competence (M/C) →	-.07	.08	-.21**	.07
T3 Anxious Romantic Attachment (C)				
T1 Consistent Discipline (M) → T2 Peer Competence (M/C) →	.07	.09	-.21**	.07
T3 Anxious Romantic Attachment (C)				
T1 Ratio of App. to Inapp. Discipline (M) → T2 Coping	.02	.07	-.14 <sup>+</sup>	.08
Efficacy (C) → T3 Romantic Involvement <sup>a</sup> (C)				
T1 Ratio of App. to Inapp. Discipline (M) → T2 Peer	.06	.07	-.06	.08
Competence (M) → T3 Romantic Involvement <sup>a</sup> (C)				
T1 Ratio of App. to Inapp. Discipline (M) → T2 Coping	.02	.07	.08	.08
Efficacy (C) → T3 Romantic Rel. Beginnings and				
Breakups (C)				
T1 Ratio of App. to Inapp. Discipline (M) → T2 Peer	.06	.07	-.12	.09
Competence (M) → T3 Romantic Rel. Beginnings and				
Breakups (C)				
T1 Ratio of App. to Inapp. Discipline (M) → T2 Coping	.02	.07	-.15 <sup>+</sup>	.08
Efficacy (C) → T3 Avoidant Romantic Attachment (C)				
T1 Ratio of App. to Inapp. Discipline (M) → T2 Peer	.06	.07	-.12	.07



Model	Path <i>a</i>	SE	Path <i>b</i>	SE
Competence (M) → T3 Avoidant Romantic Attachment (C)				
T1 Ratio of App. to Inapp. Discipline (M) → T2 Coping Efficacy (C) → T3 Anxious Romantic Attachment (C)	.02	.07	-.06	.08
Competence (M) → T3 Anxious Romantic Attachment (C)				
T1 Ratio of App. to Inapp. Discipline (M) → T2 Peer Competence (M) → T3 Romantic Involvement <sup>a</sup> (C)	.06	.07	-.21**	.07
Competence (M) → T3 Anxious Romantic Attachment (C)				
T1 Follow-Through (M) → T2 Coping Efficacy (C) → T3 Romantic Involvement <sup>a</sup> (C)	-.02	.10	-.14 <sup>+</sup>	.08
Competence (M) → T3 Anxious Romantic Attachment (C)				
T1 Follow-Through (M) → T2 Peer Competence (M) → T3 Romantic Involvement <sup>a</sup> (C)	-.04	.09	-.06	.08
Competence (M) → T3 Anxious Romantic Attachment (C)				
T1 Follow-Through (M) → T2 Coping Efficacy (C) → T3 Romantic Rel. Beginnings and Breakups (C)	-.02	.10	.08	.08
Competence (M) → T3 Anxious Romantic Attachment (C)				
T1 Follow-Through (M) → T2 Peer Competence (M) → T3 Romantic Rel. Beginnings and Breakups (C)	-.04	.09	-.12	.09
Competence (M) → T3 Anxious Romantic Attachment (C)				
T1 Follow-Through (M) → T2 Coping Efficacy (C) → T3 Avoidant Romantic Attachment (C)	-.02	.10	-.15 <sup>+</sup>	.08
Competence (M) → T3 Anxious Romantic Attachment (C)				
T1 Follow-Through (M) → T2 Peer Competence (M) → T3 Avoidant Romantic Attachment (C)	-.04	.09	-.12	.07
Competence (M) → T3 Anxious Romantic Attachment (C)				
T1 Follow-Through (M) → T2 Coping Efficacy (C) → T3 Anxious Romantic Attachment (C)	-.02	.10	-.06	.08
Competence (M) → T3 Anxious Romantic Attachment (C)				
T1 Follow-Through (M) → T2 Peer Competence (M) → T3 Anxious Romantic Attachment (C)	-.04	.09	-.21**	.07

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Model	Path <i>a</i>	SE	Path <i>b</i>	SE
T3 Anxious Romantic Attachment (C)				
<b><i>Predictor: Interparental Conflict</i></b>				
T1 Interparental Conflict (M/C) → T2 Coping Efficacy (C) →	-.08	.07	-.14 <sup>+</sup>	.08
T3 Romantic Involvement <sup>a</sup> (C)				
T1 Interparental Conflict (M/C) → T2 Peer Competence (M) →	-.02	.07	-.06	.08
T3 Romantic Involvement <sup>a</sup> (C)				
T1 Interparental Conflict (M/C) → T2 Coping Efficacy (C) →	-.08	.07	.08	.08
T3 Romantic Rel. Beginnings and Breakups (C)				
T1 Interparental Conflict (M/C) → T2 Peer Competence (M) →	-.02	.07	-.12	.09
T3 Romantic Rel. Beginnings and Breakups (C)				
T1 Interparental Conflict (M/C) → T2 Coping Efficacy (C) →	-.08	.07	-.15 <sup>+</sup>	.08
T3 Avoidant Romantic Attachment (C)				
T1 Interparental Conflict (M/C) → T2 Peer Competence (M) →	-.02	.07	-.12	.07
T3 Avoidant Romantic Attachment (C)				
T1 Interparental Conflict (M/C) → T2 Coping Efficacy (C) →	-.08	.07	-.06	.08
T3 Anxious Romantic Attachment (C)				
T1 Interparental Conflict (M/C) → T2 Peer Competence (M) →	-.02	.07	-.21 <sup>**</sup>	.07
T3 Anxious Romantic Attachment (C)				

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*Note.* (M/C) = Mother + Child Report; (M) = Mother Report; (C) = Child Report. T1 = Pretest; T2 = Six-Year Follow-Up; T3 = 15-Year Follow-Up.

<sup>a</sup>1 = Yes; 2 = No.

<sup>+</sup>  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

Table 7

*Paths Added to Improve Model Fit: Model with All Participants*

Path	Standardized Path Coefficient	SE
T1 Coping Efficacy (C) → T3 Romantic Rel. Beginnings and Breakups (C)	-.07	.07
T1 Interparental Conflict (M/C) → T3 Romantic Rel. Beginnings and Breakups (C) <sup>a</sup>	.13 <sup>+</sup>	.07
T1 Maternal Warmth (C) → T3 Anxious Romantic Attachment (C) <sup>a</sup>	.15*	.08
T1 Maternal Warmth (M) → T3 Anxious Romantic Attachment (C) <sup>a</sup>	-.13*	.07
T1 Consistent Discipline (C) → T3 Anxious Romantic Attachment (C) <sup>a</sup>	-.04	.07

*Note.* (M/C) = Mother + Child Report; (M) = Mother Report; (C) = Child Report. T1 = Pretest; T3 = 15-Year Follow-Up.

<sup>a</sup>Paths that were added to improve the fit of Figure 1 and were also added to Figure 2 for consistency.

<sup>+</sup>  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

Table 8

*Tests of Significance for Mediated Effects: Model with All Participants*

Model	Mediated Effect <sup>a</sup>	95% Confidence Interval <sup>b</sup>	
		Lower Limit	Upper Limit
T1 Maternal Warmth (C) → T2 Coping Efficacy (C) → T3 Romantic Involvement <sup>c</sup> (C)	1.43	-.077	.002
T1 Maternal Warmth (C) → T2 Coping Efficacy (C) → T3 Avoidant Romantic Attachment (C)	-1.49	-.079	.000
T1 Consistent Discipline (C) → T2 Coping Efficacy (C) → T3 Romantic Involvement <sup>c</sup> (C)	1.40	-.003	.069
T1 Consistent Discipline (C) → T2 Coping Efficacy (C) → T3 Avoidant Romantic Attachment (C)	1.46	-.001	.071

<sup>a</sup>The conventional delta method was used to calculate this estimate, where  $(ab / SE_{ab})$  and  $SE_{ab} = (a^2SE_b^2 + b^2SE_a^2)^{1/2}$  (MacKinnon & Dwyer, 1993; Sobel, 1982). <sup>b</sup>MacKinnon, Lockwood, & Williams' (2004) asymmetric confidence interval method was used to calculate this estimate. <sup>c</sup>1 = Yes; 2 = No.

Table 9

*Standardized Path Coefficients and Standard Errors: Model with Only Romantically-Involved Participants*

Model	Path <i>a</i>	SE	Path <i>b</i>	SE
<b><i>Predictor: Maternal Warmth</i></b>				
T1 Maternal Warmth (C) → T2 Coping Efficacy (C) → T3 Romantic Rel. Beginnings and Breakups (C)	.27*	.11	.06	.09
T1 Maternal Warmth (M) → T2 Coping Efficacy (C) → T3 Romantic Rel. Beginnings and Breakups (C)	-.08	.10	.06	.09
T1 Maternal Warmth (C) → T2 Peer Competence (M/C) → T3 Romantic Rel. Beginnings and Breakups (C)	.00	.11	-.12	.09
T1 Maternal Warmth (M) → T2 Peer Competence (M/C) → T3 Romantic Rel. Beginnings and Breakups (C)	-.07	.10	-.12	.09
T1 Maternal Warmth (C) → T2 Coping Efficacy (C) → T3 Avoidant Romantic Attachment (C)	.27*	.11	-.13	.09
T1 Maternal Warmth (M) → T2 Coping Efficacy (C) → T3 Avoidant Romantic Attachment (C)	-.08	.10	-.13	.09
T1 Maternal Warmth (C) → T2 Peer Competence (M/C) → T3 Avoidant Romantic Attachment (C)	.00	.11	-.08	.09
T1 Maternal Warmth (M) → T2 Peer Competence (M/C) → T3 Avoidant Romantic Attachment (C)	-.07	.10	-.08	.09
T1 Maternal Warmth (C) → T2 Coping Efficacy (C) →	.27*	.11	-.12	.10

Model	Path <i>a</i>	SE	Path <i>b</i>	SE
T3 Anxious Romantic Attachment (C)				
T1 Maternal Warmth (M) → T2 Coping Efficacy (C) →	-.08	.10	-.12	.10
T3 Anxious Romantic Attachment (C)				
T1 Maternal Warmth (C) → T2 Peer Competence (M/C) →	.00	.11	-.08	.09
T3 Anxious Romantic Attachment (C)				
T1 Maternal Warmth (M) → T2 Peer Competence (M/C) →	-.07	.10	-.08	.09
T3 Anxious Romantic Attachment (C)				
T1 Maternal Warmth (C) → T2 Coping Efficacy (C) →	.27*	.11	.17 <sup>+</sup>	.10
T3 Romantic Relationship Satisfaction (C/RP)				
T1 Maternal Warmth (M) → T2 Coping Efficacy (C) →	-.08	.10	.17 <sup>+</sup>	.10
T3 Romantic Relationship Satisfaction (C/RP)				
T1 Maternal Warmth (C) → T2 Peer Competence (M/C) →	.00	.11	-.02	.10
T3 Romantic Relationship Satisfaction (C/RP)				
T1 Maternal Warmth (M) → T2 Peer Competence (M/C) →	-.07	.10	-.02	.10
T3 Romantic Relationship Satisfaction (C/RP)				
T1 Maternal Warmth (C) → T2 Coping Efficacy (C) →	.27*	.11	-.11	.10
T3 Romantic Relationship Problems (C/RP)				
T1 Maternal Warmth (M) → T2 Coping Efficacy (C) →	-.08	.10	-.11	.10
T3 Romantic Relationship Problems (C/RP)				
T1 Maternal Warmth (C) → T2 Peer Competence (M/C) →	.00	.11	-.00	.10

Model	Path <i>a</i>	SE	Path <i>b</i>	SE
T3 Romantic Relationship Problems (C/RP)				
T1 Maternal Warmth (M) → T2 Peer Competence (M/C) →	-.07	.10	-.00	.10
T3 Romantic Relationship Problems (C/RP)				
T1 Maternal Warmth (C) → T2 Coping Efficacy (C) →	.27*	.11	.17 <sup>+</sup>	.09
T3 Confidence in the Romantic Relationship (C/RP)				
T1 Maternal Warmth (M) → T2 Coping Efficacy (C) →	-.08	.10	.17 <sup>+</sup>	.09
T3 Confidence in the Romantic Relationship (C/RP)				
T1 Maternal Warmth (C) → T2 Peer Competence (M/C) →	.00	.11	.03	.09
T3 Confidence in the Romantic Relationship (C/RP)				
T1 Maternal Warmth (M) → T2 Peer Competence (M/C) →	-.07	.10	.03	.09
T3 Confidence in the Romantic Relationship (C/RP)				
<b><i>Predictor: Maternal Discipline</i></b>				
T1 Consistent Discipline (C) → T2 Coping Efficacy (C) →	-.27*	.10	.06	.09
T3 Romantic Rel. Beginnings and Breakups (C)				
T1 Consistent Discipline (M) → T2 Coping Efficacy (C) →	-.01	.12	.06	.09
T3 Romantic Rel. Beginnings and Breakups (C)				
T1 Consistent Discipline (C) → T2 Peer Competence (M/C) →	-.07	.11	-.12	.09
T3 Romantic Rel. Beginnings and Breakups (C)				
T1 Consistent Discipline (M) → T2 Peer Competence (M/C) →	.17	.12	-.12	.09
T3 Romantic Rel. Beginnings and Breakups (C)				



Model	Path <i>a</i>	SE	Path <i>b</i>	SE
T1 Consistent Discipline (C) → T2 Coping Efficacy (C) → T3 Avoidant Romantic Attachment (C)	-.27*	.10	-.13	.09
T1 Consistent Discipline (M) → T2 Coping Efficacy (C) → T3 Avoidant Romantic Attachment (C)	-.01	.12	-.13	.09
T1 Consistent Discipline (C) → T2 Peer Competence (M/C) → T3 Avoidant Romantic Attachment (C)	-.07	.11	-.08	.09
T1 Consistent Discipline (M) → T2 Peer Competence (M/C) → T3 Avoidant Romantic Attachment (C)	.17	.12	-.08	.09
T1 Consistent Discipline (C) → T2 Coping Efficacy (C) → T3 Anxious Romantic Attachment (C)	-.27*	.10	-.12	.10
T1 Consistent Discipline (M) → T2 Coping Efficacy (C) → T3 Anxious Romantic Attachment (C)	-.01	.12	-.12	.10
T1 Consistent Discipline (C) → T2 Peer Competence (M/C) → T3 Anxious Romantic Attachment (C)	-.07	.11	-.08	.09
T1 Consistent Discipline (M) → T2 Peer Competence (M/C) → T3 Anxious Romantic Attachment (C)	.17	.12	-.08	.09
T1 Consistent Discipline (C) → T2 Coping Efficacy (C) → T3 Romantic Relationship Satisfaction (C/RP)	-.27*	.10	.17 <sup>+</sup>	.10
T1 Consistent Discipline (M) → T2 Coping Efficacy (C) → T3 Romantic Relationship Satisfaction (C/RP)	-.01	.12	.17 <sup>+</sup>	.10

Model	Path <i>a</i>	SE	Path <i>b</i>	SE
T1 Consistent Discipline (C) → T2 Peer Competence (M/C) → T3 Romantic Relationship Satisfaction (C/RP)	-.07	.11	-.02	.10
T1 Consistent Discipline (M) → T2 Peer Competence (M/C) → T3 Romantic Relationship Satisfaction (C/RP)	.17	.12	-.02	.10
T1 Consistent Discipline (C) → T2 Coping Efficacy (C) → T3 Romantic Relationship Problems (C/RP)	-.27*	.10	-.11	.10
T1 Consistent Discipline (M) → T2 Coping Efficacy (C) → T3 Romantic Relationship Problems (C/RP)	-.01	.12	-.11	.10
T1 Consistent Discipline (C) → T2 Peer Competence (M/C) → T3 Romantic Relationship Problems (C/RP)	-.07	.11	-.00	.10
T1 Consistent Discipline (M) → T2 Peer Competence (M/C) → T3 Romantic Relationship Problems (C/RP)	.17	.12	-.00	.10
T1 Consistent Discipline (C) → T2 Coping Efficacy (C) → T3 Confidence in the Romantic Relationship (C/RP)	-.27*	.10	.17 <sup>+</sup>	.09
T1 Consistent Discipline (M) → T2 Coping Efficacy (C) → T3 Confidence in the Romantic Relationship (C/RP)	-.01	.12	.17 <sup>+</sup>	.09
T1 Consistent Discipline (C) → T2 Peer Competence (M/C) → T3 Confidence in the Romantic Relationship (C/RP)	-.07	.11	.03	.09
T1 Consistent Discipline (M) → T2 Peer Competence (M/C) → T3 Confidence in the Romantic Relationship (C/RP)	.17	.12	.03	.09

Model	Path <i>a</i>	SE	Path <i>b</i>	SE
T1 Ratio of App. to Inapp. Discipline (M) → T2 Coping Efficacy (C) → T3 Romantic Rel. Beginnings and Breakups (C)	.08	.09	.06	.09
T1 Ratio of App. to Inapp. Discipline (M) → T2 Peer Competence (M) → T3 Romantic Rel. Beginnings and Breakups (C)	.07	.09	-.12	.09
T1 Ratio of App. to Inapp. Discipline (M) → T2 Coping Efficacy (C) → T3 Avoidant Romantic Attachment (C)	.08	.09	-.13	.09
T1 Ratio of App. to Inapp. Discipline (M) → T2 Peer Competence (M) → T3 Avoidant Romantic Attachment (C)	.07	.09	-.08	.09
T1 Ratio of App. to Inapp. Discipline (M) → T2 Coping Efficacy (C) → T3 Anxious Romantic Attachment (C)	.08	.09	-.12	.10
T1 Ratio of App. to Inapp. Discipline (M) → T2 Peer Competence (M) → T3 Anxious Romantic Attachment (C)	.07	.09	-.08	.09
T1 Ratio of App. to Inapp. Discipline (M) → T2 Coping Efficacy (C) → T3 Romantic Relationship Satisfaction (C/RP)	.08	.09	.17 <sup>+</sup>	.10
T1 Ratio of App. to Inapp. Discipline (M) → T2 Peer Competence (M) → T3 Romantic Relationship Satisfaction (C/RP)	.07	.09	-.02	.10
T1 Ratio of App. to Inapp. Discipline (M) → T2 Coping Efficacy (C) → T3 Romantic Relationship Problems (C/RP)	.08	.09	-.11	.10

Model	Path <i>a</i>	SE	Path <i>b</i>	SE
T1 Ratio of App. to Inapp. Discipline (M) → T2 Peer Competence (M) → T3 Romantic Relationship Problems (C/RP)	.07	.09	-.00	.10
T1 Ratio of App. to Inapp. Discipline (M) → T2 Coping Efficacy (C) → T3 Confidence in the Romantic Rel. (C/RP)	.08	.09	.17 <sup>+</sup>	.09
T1 Ratio of App. to Inapp. Discipline (M) → T2 Peer Competence (M) → T3 Confidence in the Romantic Rel. (C/RP)	.07	.09	.03	.09
T1 Follow-Through (M) → T2 Coping Efficacy (C) → T3 Romantic Rel. Beginnings and Breakups (C)	-.08	.12	.06	.09
T1 Follow-Through (M) → T2 Peer Competence (M) → T3 Romantic Rel. Beginnings and Breakups (C)	-.14	.12	-.12	.09
T1 Follow-Through (M) → T2 Coping Efficacy (C) → T3 Avoidant Romantic Attachment (C)	-.08	.12	-.13	.09
T1 Follow-Through (M) → T2 Peer Competence (M) → T3 Avoidant Romantic Attachment (C)	-.14	.12	-.08	.09
T1 Follow-Through (M) → T2 Coping Efficacy (C) → T3 Anxious Romantic Attachment (C)	-.08	.12	-.12	.10
T1 Follow-Through (M) → T2 Peer Competence (M) → T3 Anxious Romantic Attachment (C)	-.14	.12	-.08	.09
T1 Follow-Through (M) → T2 Coping Efficacy (C) → T3 Romantic Relationship Satisfaction (C/RP)	-.08	.12	.17 <sup>+</sup>	.10

Model	Path <i>a</i>	SE	Path <i>b</i>	SE
T1 Follow-Through (M) → T2 Peer Competence (M) → T3 Romantic Relationship Satisfaction (C/RP)	-.14	.12	-.02	.10
T1 Follow-Through (M) → T2 Coping Efficacy (C) → T3 Romantic Relationship Problems (C/RP)	-.08	.12	-.11	.10
T1 Follow-Through (M) → T2 Peer Competence (M) → T3 Romantic Relationship Problems (C/RP)	-.14	.12	-.00	.10
T1 Follow-Through (M) → T2 Coping Efficacy (C) → T3 Confidence in the Romantic Relationship (C/RP)	-.08	.12	.17 <sup>+</sup>	.09
T1 Follow-Through (M) → T2 Peer Competence (M) → T3 Confidence in the Romantic Relationship (C/RP)	-.14	.12	.03	.09
<b><i>Predictor: Interparental Conflict</i></b>				
T1 Interparental Conflict (M/C) → T2 Coping Efficacy (C) → T3 Romantic Rel. Beginnings and Breakups (C)	.00	.09	.06	.09
T1 Interparental Conflict (M/C) → T2 Peer Competence (M) → T3 Romantic Rel. Beginnings and Breakups (C)	.02	.10	-.12	.09
T1 Interparental Conflict (M/C) → T2 Coping Efficacy (C) → T3 Avoidant Romantic Attachment (C)	.00	.09	-.13	.09
T1 Interparental Conflict (M/C) → T2 Peer Competence (M) → T3 Avoidant Romantic Attachment (C)	.02	.10	-.08	.09
T1 Interparental Conflict (M/C) → T2 Coping Efficacy (C) →	.00	.09	-.12	.10

Model	Path <i>a</i>	SE	Path <i>b</i>	SE
T1 Interparental Conflict (M/C) → T2 Peer Competence (M) → T3 Romantic Relationship Satisfaction (C/RP)	.02	.10	-.02	.10
T1 Interparental Conflict (M/C) → T2 Coping Efficacy (C) → T3 Romantic Relationship Problems (C/RP)	.00	.09	-.11	.10
T1 Interparental Conflict (M/C) → T2 Peer Competence (M) → T3 Romantic Relationship Problems (C/RP)	.02	.10	-.00	.10
T1 Interparental Conflict (M/C) → T2 Coping Efficacy (C) → T3 Confidence in the Romantic Relationship (C/RP)	.00	.09	.17 <sup>+</sup>	.09
T1 Interparental Conflict (M/C) → T2 Peer Competence (M) → T3 Confidence in the Romantic Relationship (C/RP)	.02	.10	.03	.09

*Note.* In this analysis, Romantic Involvement was not included as an outcome because all participants were romantically involved. (M/C) = Mother + Child Report; (M) = Mother Report; (C) = Child Report, (C/RP) = Child + Romantic Partner Report. T1 = Pretest; T2 = Six-Year Follow-Up; T3 = 15-Year Follow-Up.

<sup>+</sup>  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

Table 10

*Paths Added to Improve Model Fit: Model with Only Romantically-Involved Participants*

Path	Standardized Path Coefficient	SE
T1 Coping Efficacy (C) → T3 Romantic Rel. Beginnings and Breakups (C) <sup>a</sup>	-.01	.02
T1 Interparental Conflict (M/C) → T3 Romantic Rel. Beginnings and Breakups (C)	.26**	.08
T1 Maternal Warmth (C) → T3 Anxious Romantic Attachment (C)	.26**	.09
T1 Maternal Warmth (M) → T3 Anxious Romantic Attachment (C)	-.17*	.07
T1 Consistent Discipline (C) → T3 Anxious Romantic Attachment (C)	-.10	.09

*Note.* (M/C) = Mother + Child Report; (M) = Mother Report; (C) = Child Report. T1 = Pretest; T3 = 15-Year Follow-Up.

<sup>a</sup>Paths that were added to improve the fit of Figure 2 and were also added to Figure 1 for consistency.

<sup>+</sup>  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

Table 11

*Tests of Significance for Mediated Effects: Model with Only Romantically-Involved Participants*

Model	Mediated Effect <sup>a</sup>	95% Confidence Interval <sup>b</sup>	
		Lower Limit	Upper Limit
T1 Maternal Warmth (C) → T2 Coping Efficacy (C) → T3 Romantic Satisfaction (C/RP)	1.47	-.001	.122
T1 Maternal Warmth (C) → T2 Coping Efficacy (C) → T3 Confidence in the Romantic Relationship (C/RP)	1.48	-.001	.120
T1 Consistent Discipline (C) → T2 Coping Efficacy (C) → T3 Confidence in the Romantic Relationship (C/RP)	-1.50	-.118	.000
T1 Consistent Discipline (C) → T2 Coping Efficacy (C) → T3 Romantic Satisfaction (C/RP)	-1.48	-.120	.001

<sup>a</sup>The conventional delta method was used to calculate this estimate, where  $(ab / SE_{ab})$  and  $SE_{ab} = (a^2SE_b^2 + b^2SE_a^2)^{1/2}$  (MacKinnon & Dwyer, 1993; Sobel, 1982). <sup>b</sup>MacKinnon, Lockwood, & Williams' (2004) asymmetric confidence interval method was used to calculate this estimate.



Figure 1. Participants currently involved in a romantic relationship ( $N = 139$ ).

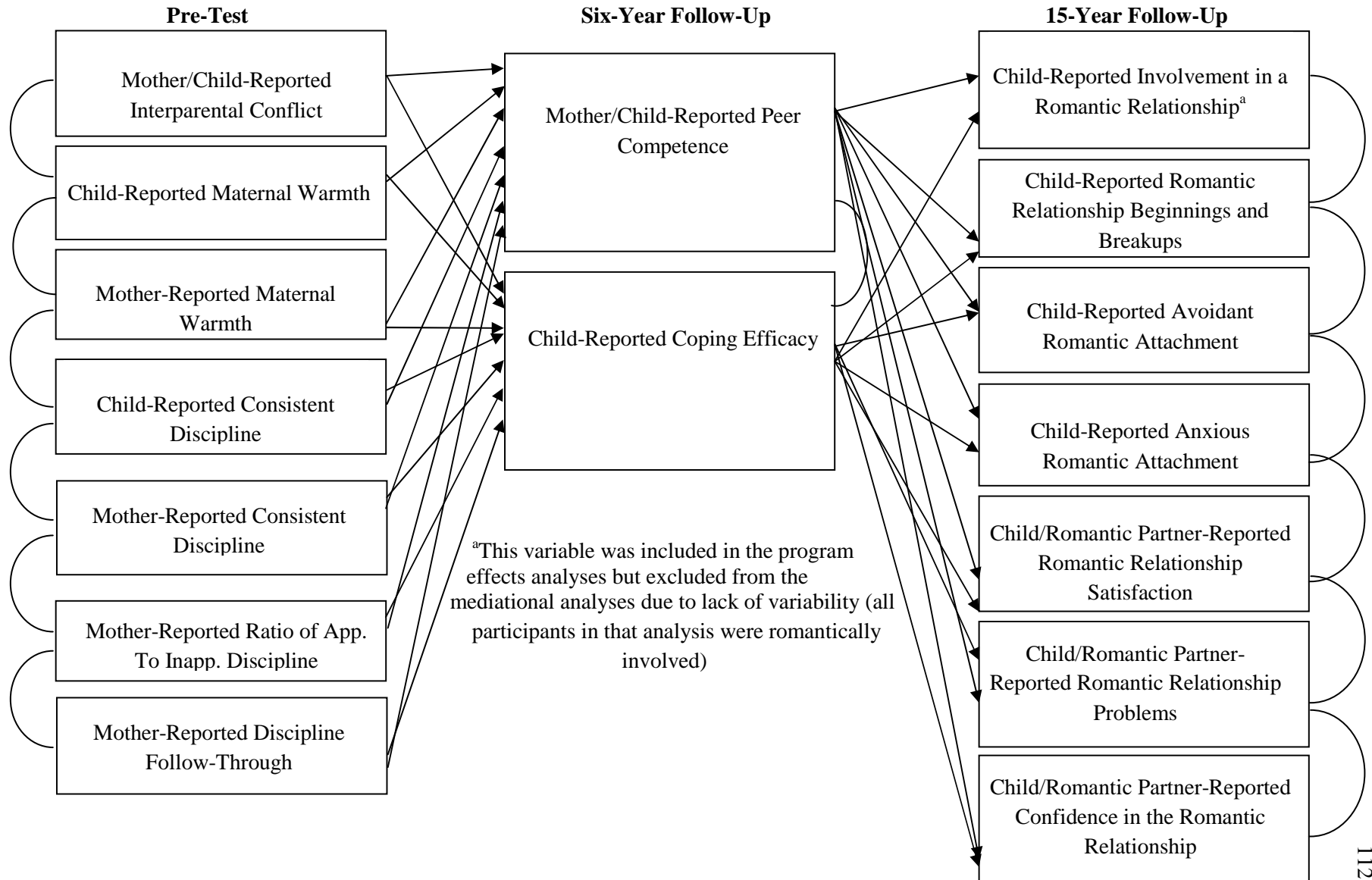


Figure 2. All participants, regardless of romantic involvement ( $N = 194$ ).

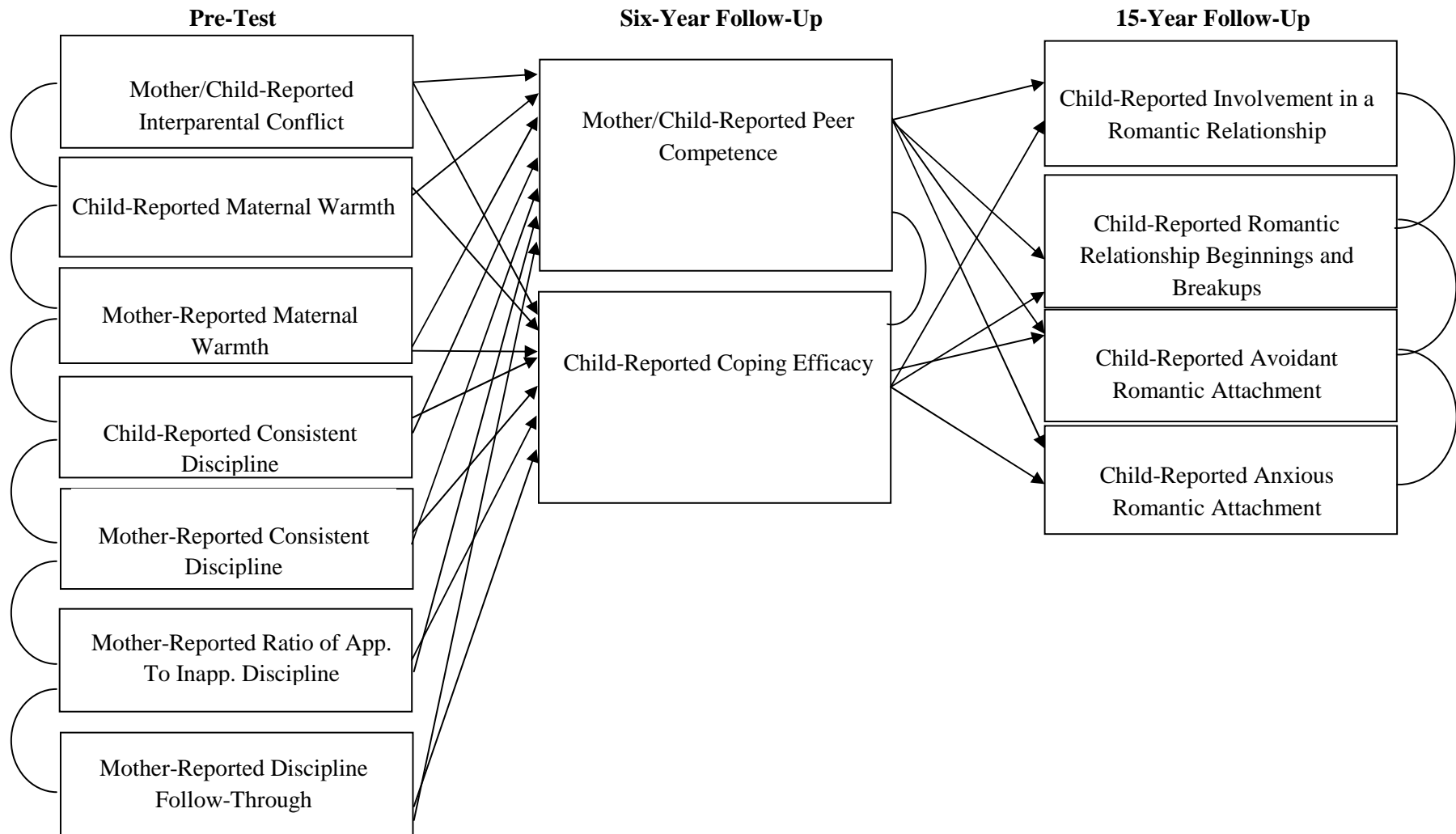


Figure 3. CFA for maternal warmth items.

( $r = .26$ )

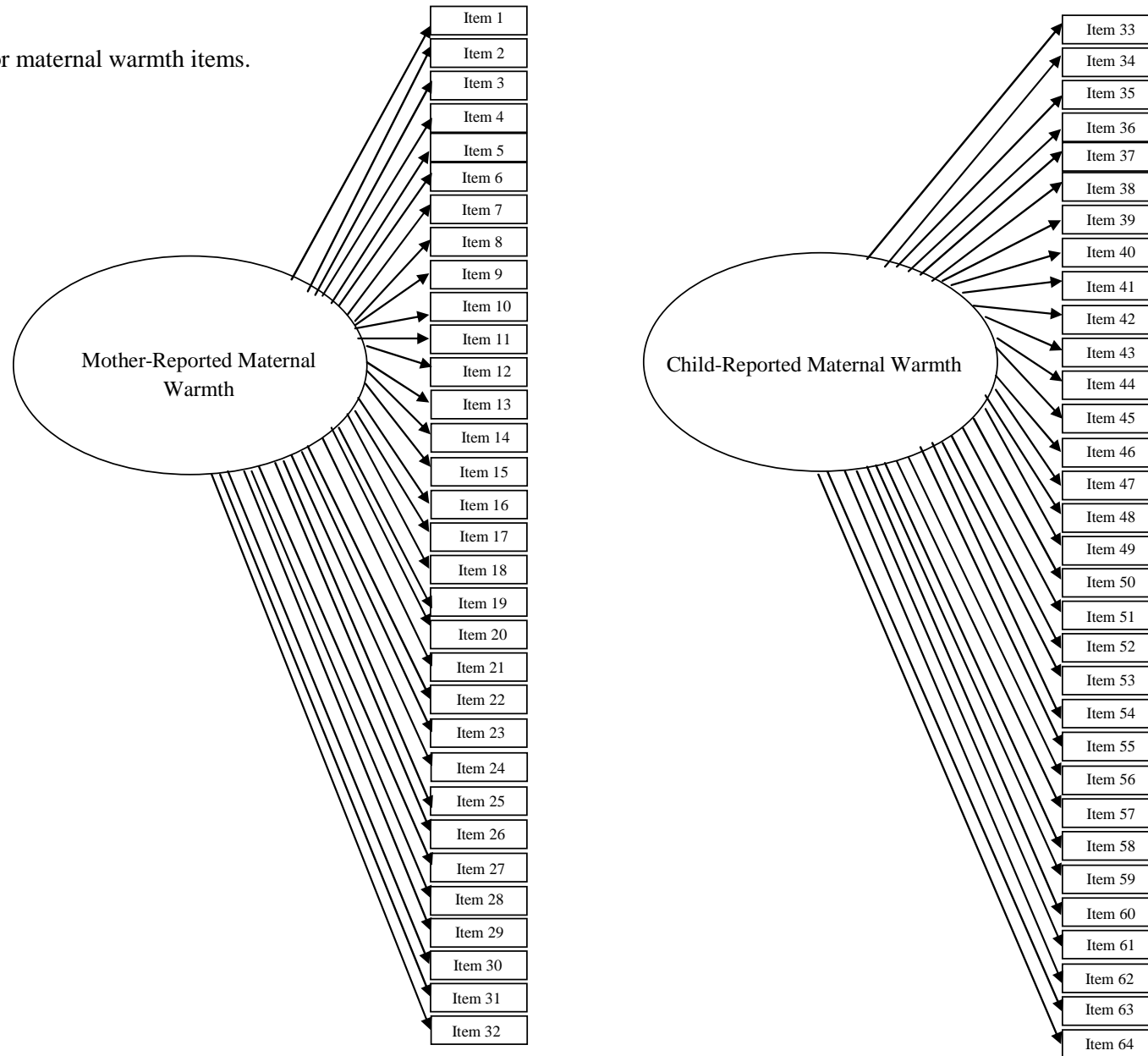


Figure 4. CFA for maternal discipline items.  
(See pg.41 for correlations among factors)

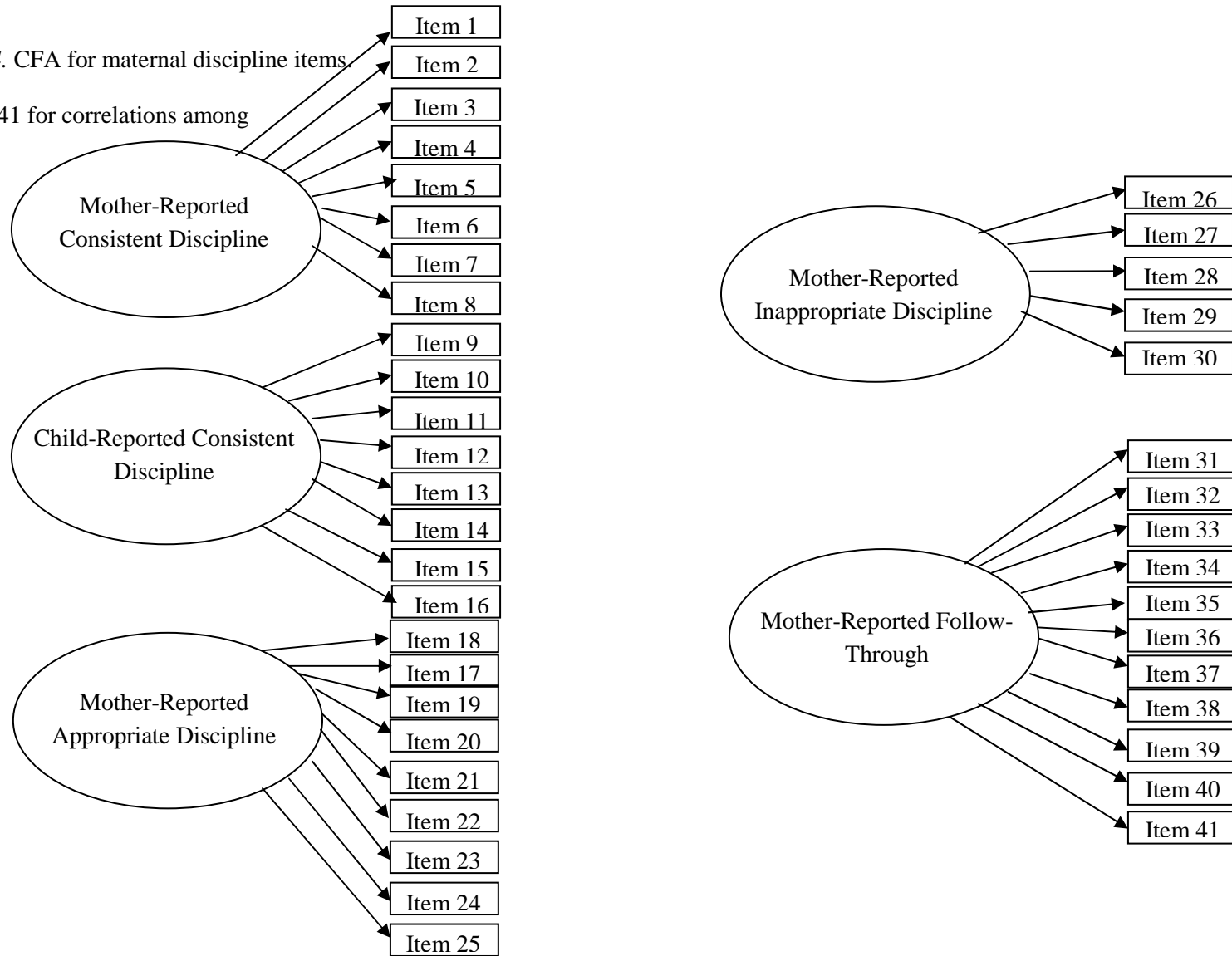


Figure 5. Stacked model for all participants, testing gender moderation: males.

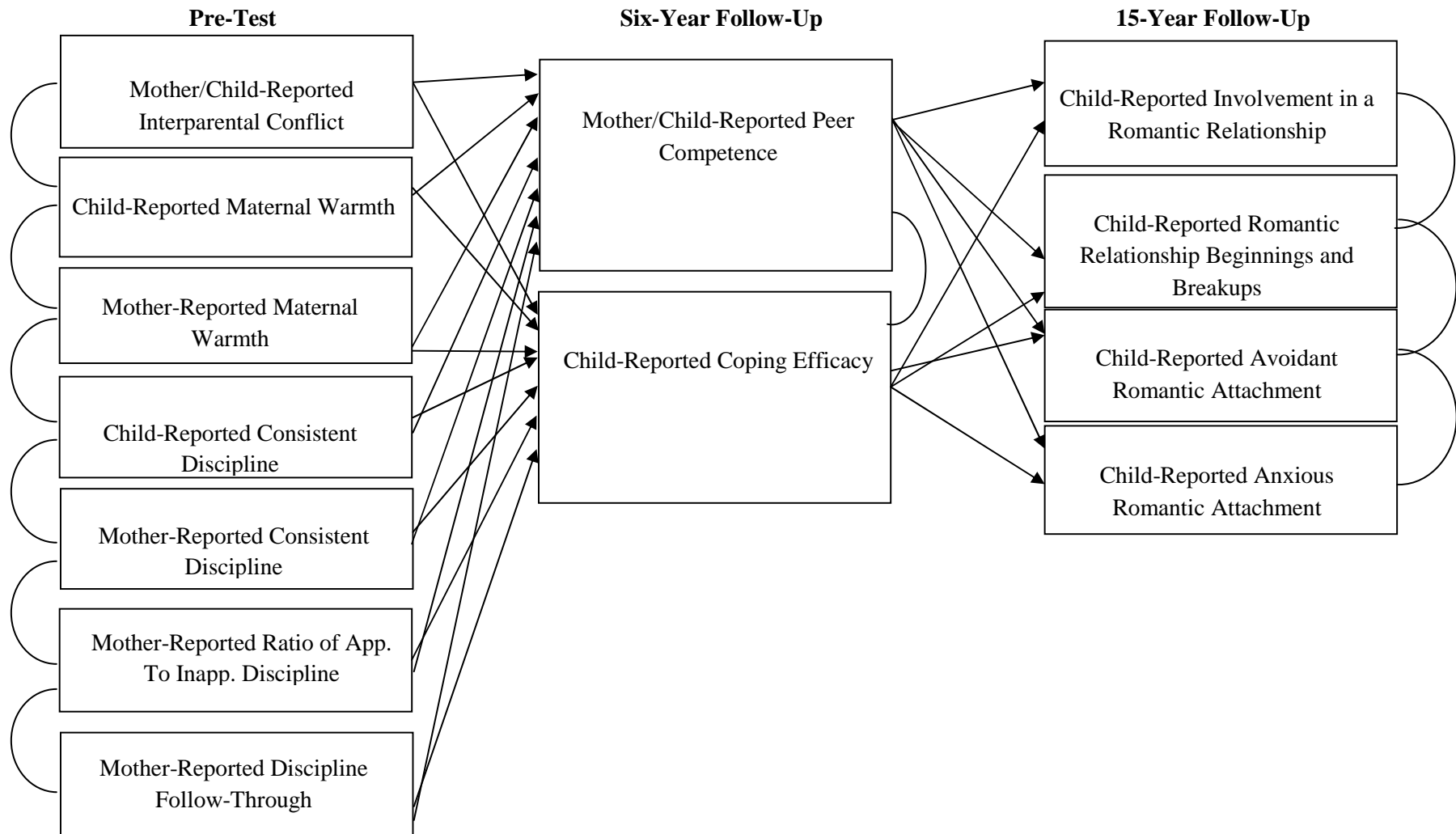


Figure 6. Stacked model for all participants, testing gender moderation: females.

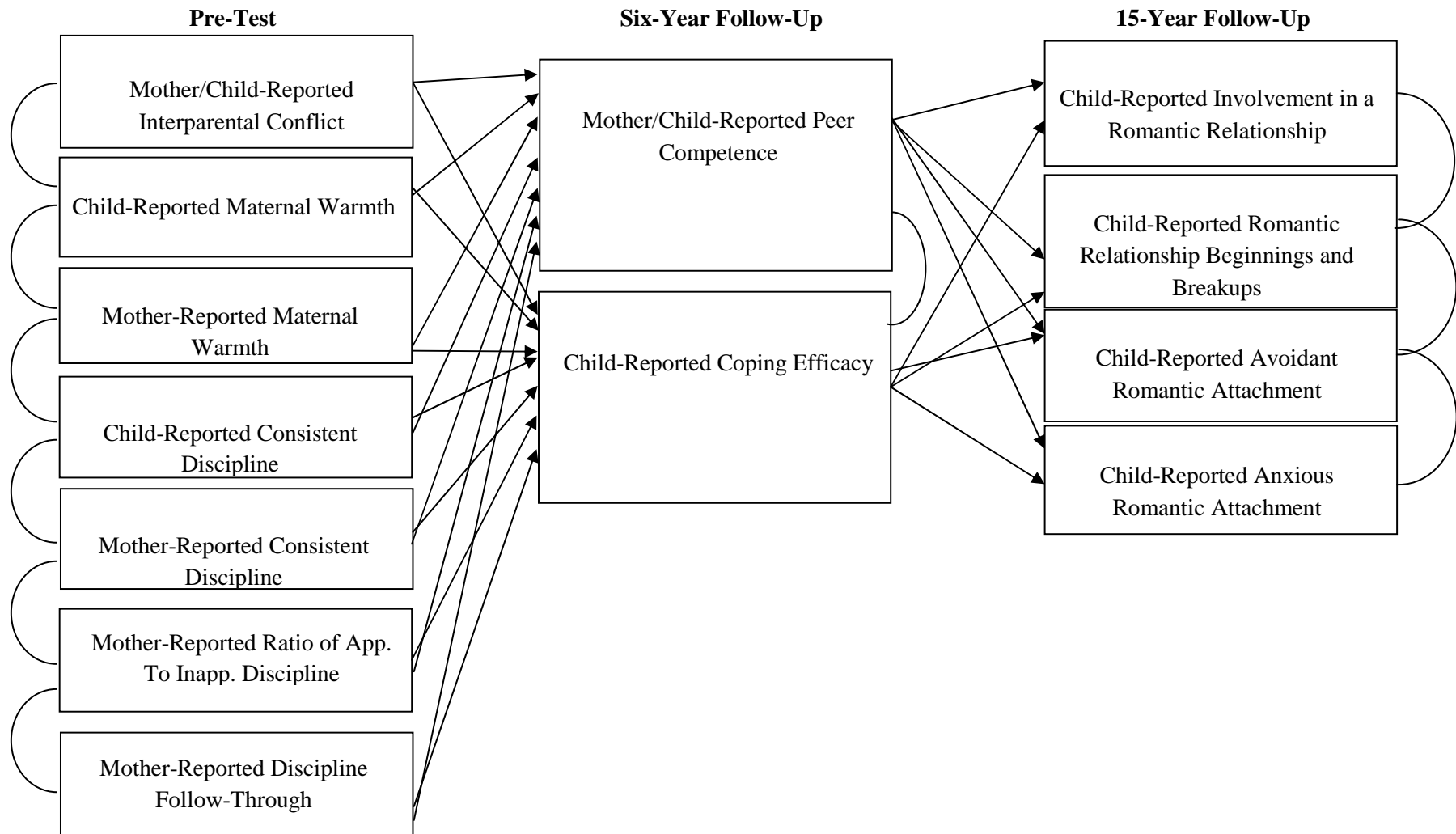


Figure 7. Stacked model for only romantically-involved participants, testing gender moderation: males (simpler model with romantic relationship satisfaction, problems, and confidence variables).

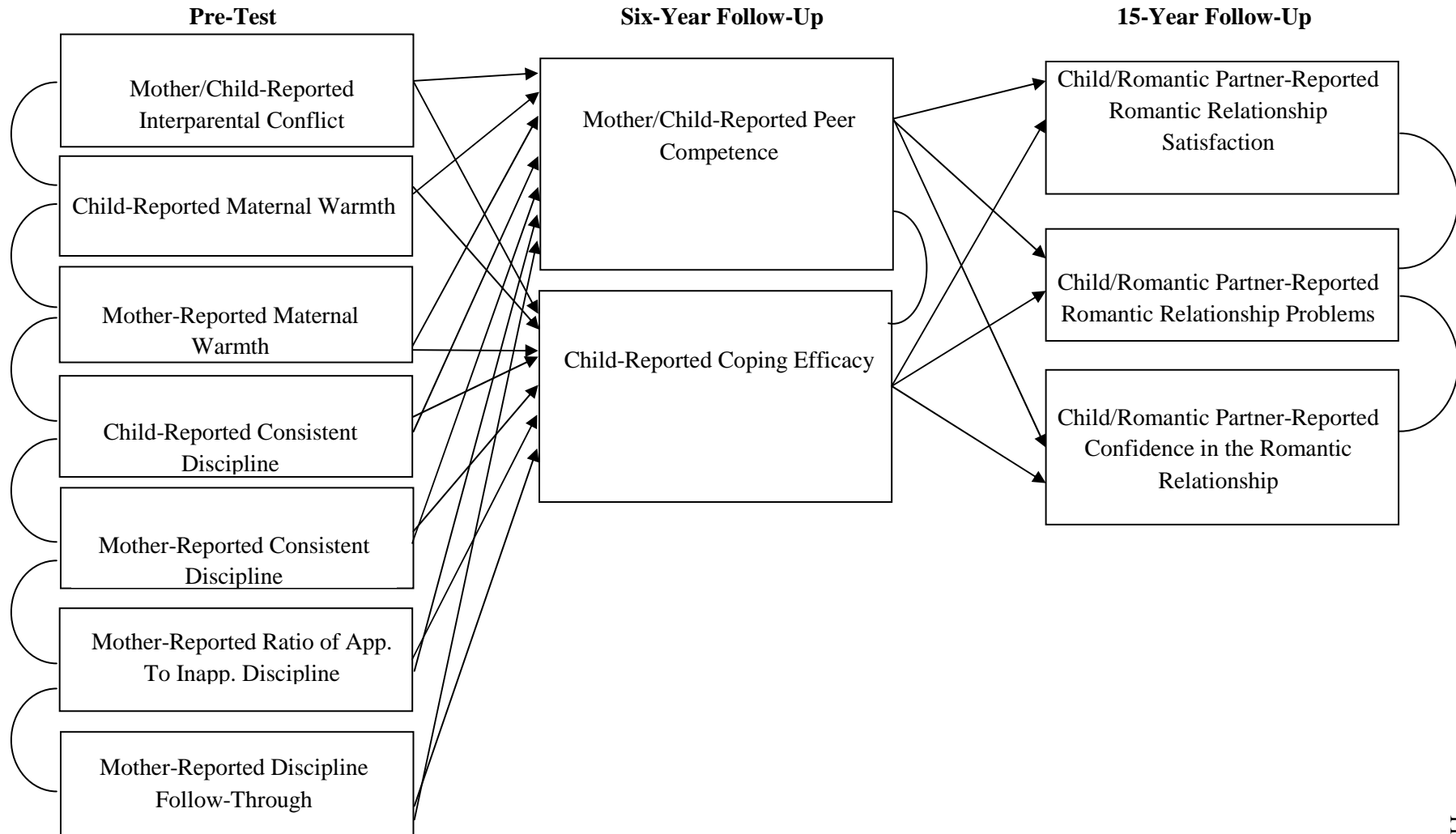


Figure 8. Stacked model for only romantically-involved participants, testing gender moderation: females (simpler model with romantic relationship satisfaction, problems, and confidence variables).

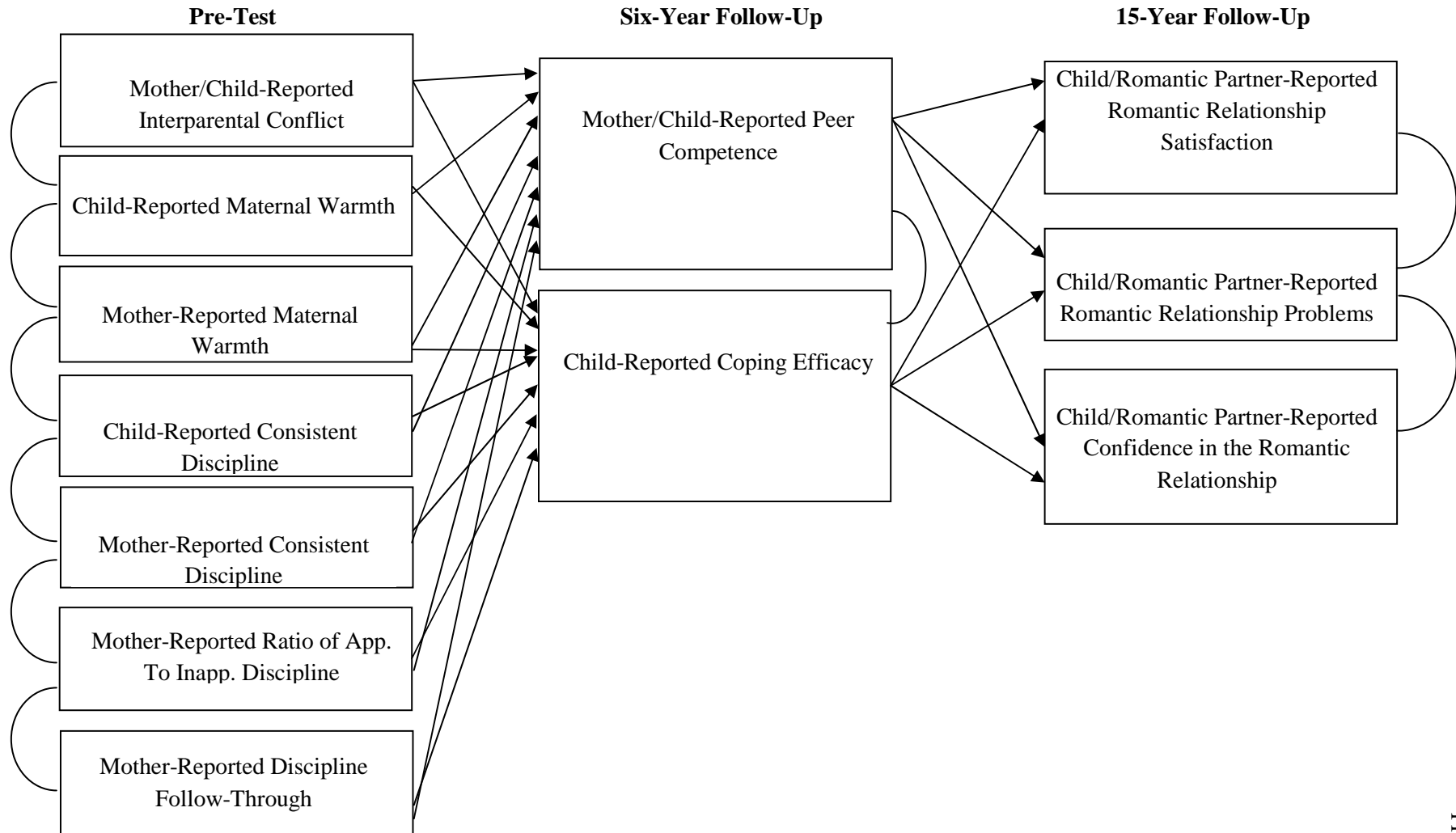




Figure 9. Stacked model for only romantically-involved participants, testing gender moderation: males (simpler model with relationship beginnings and breakups and romantic attachment variables).

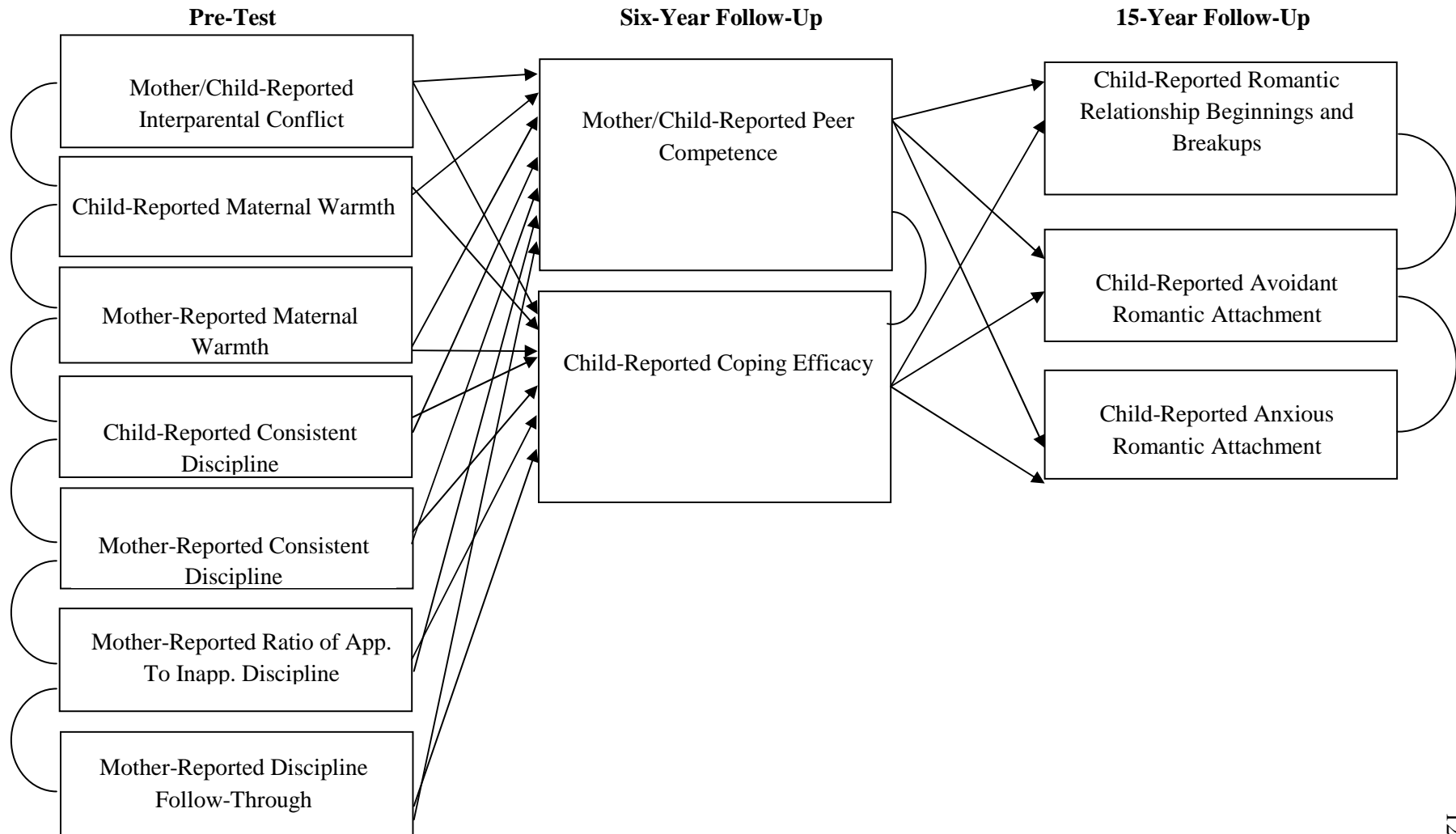


Figure 10. Stacked model for only romantically-involved participants, testing gender moderation: females (simpler model with relationship beginnings and breakups and romantic attachment variables).

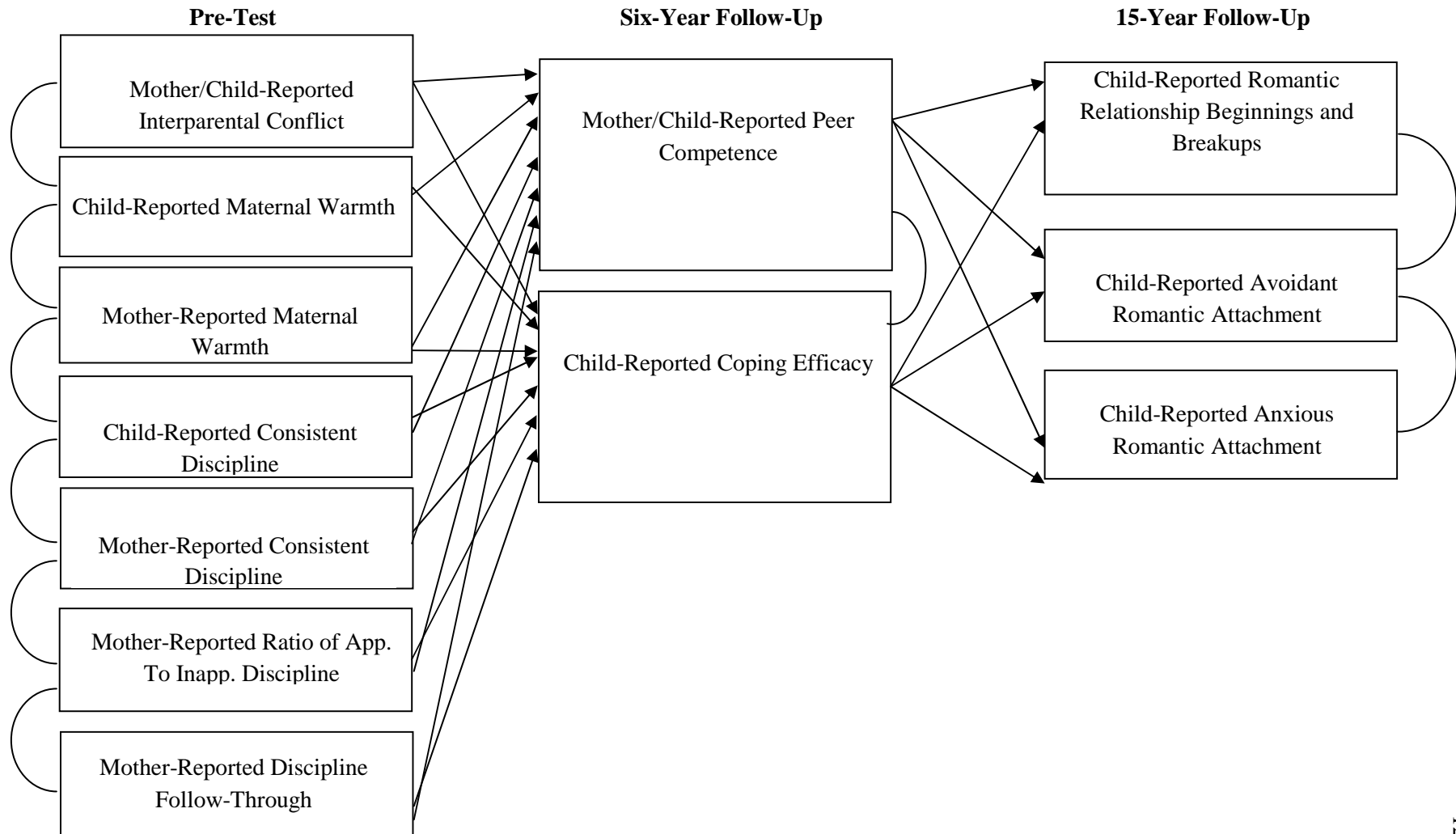


Figure 11. Standardized path coefficients for model with all participants (combined genders).

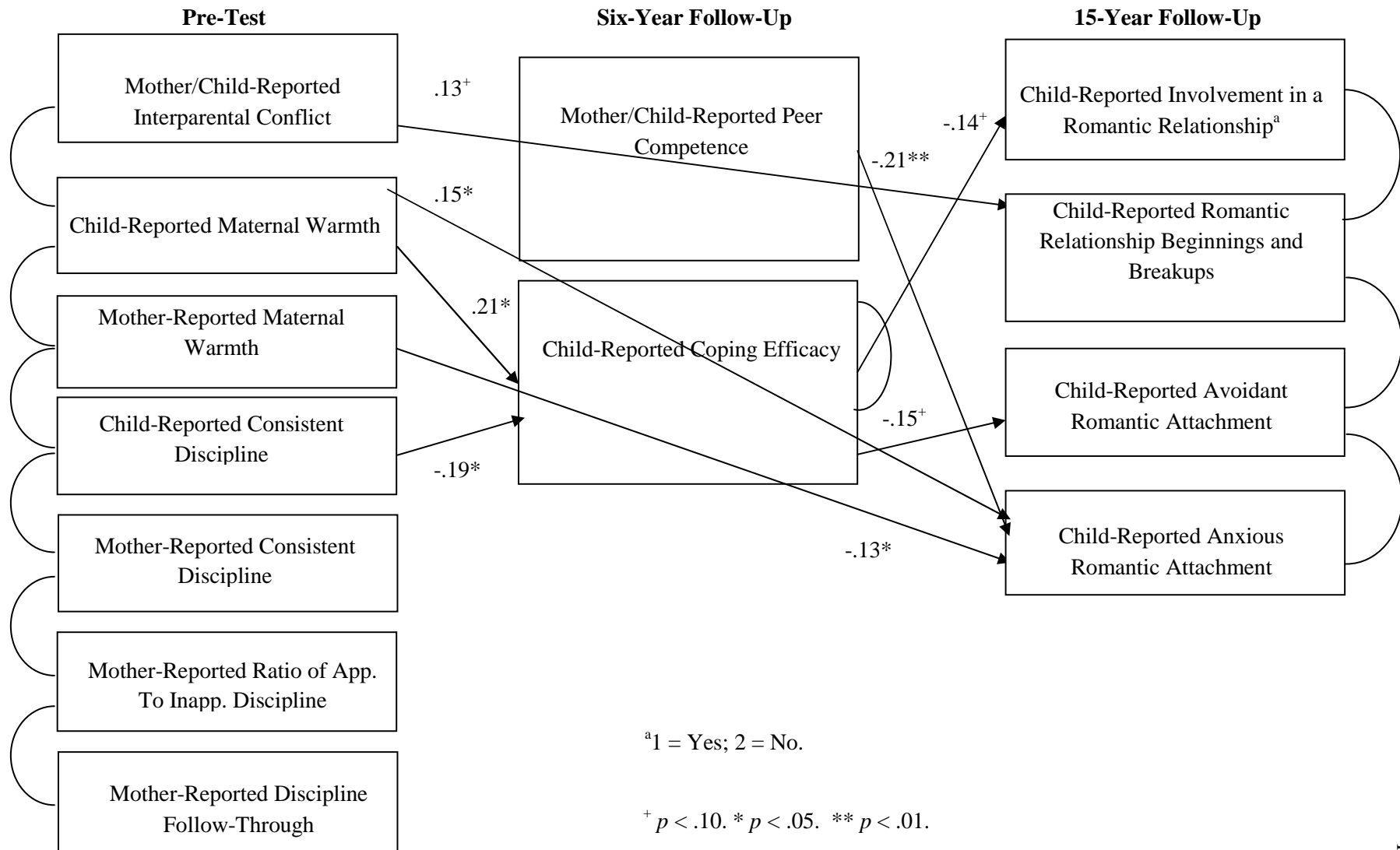
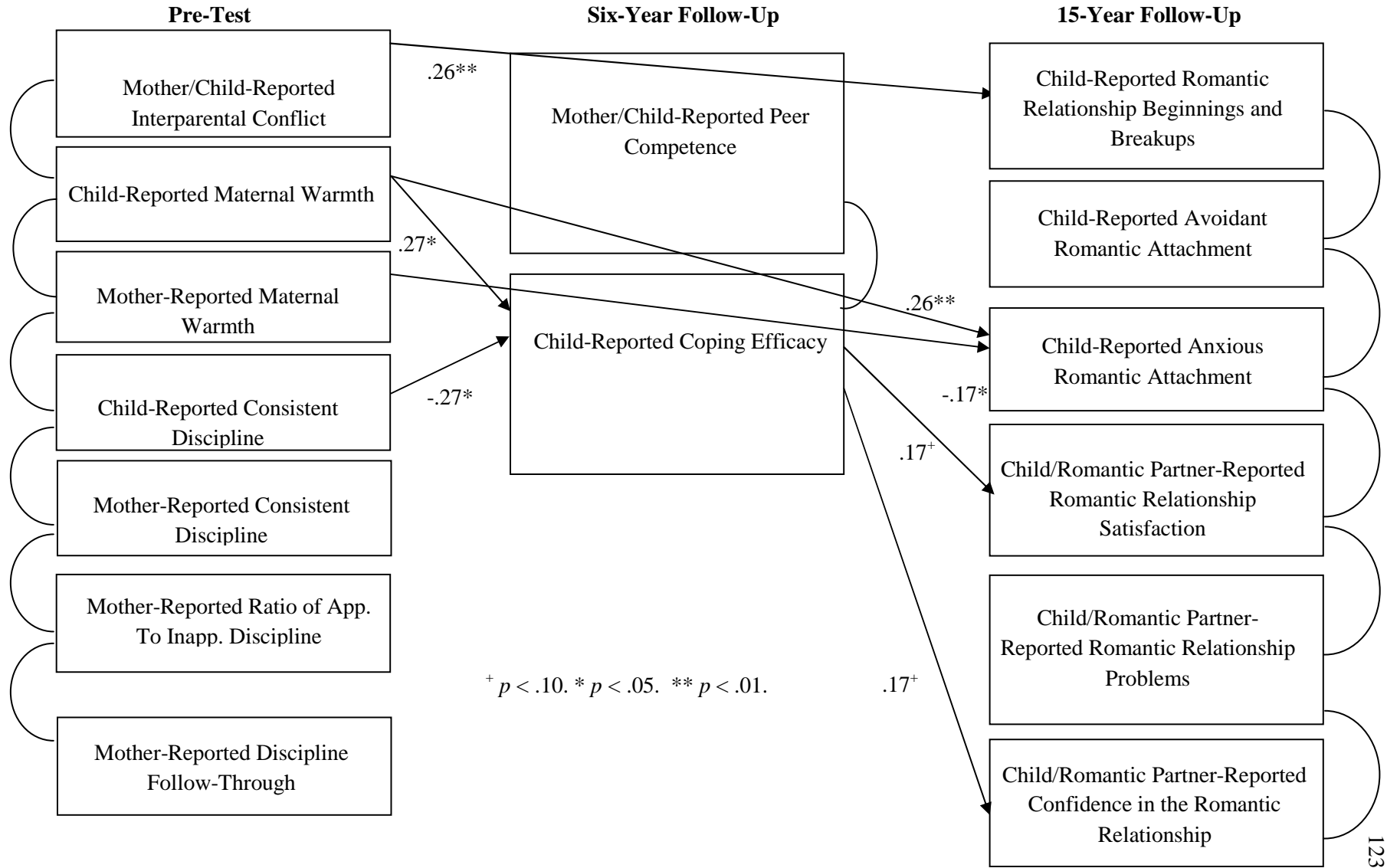


Figure 12. Standardized path coefficients for model with only romantically-involved participants (combined genders).



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